



U.S. Department of Transportation
Federal Highway Administration



Alternative Contracting Methods - Progressive Design-Build -

MA Division -- June 11, 2024

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Today's Agenda:

- **Welcome**
- **FHWA's Intro to PDB**
- **Breakout Discussions**
- **FHWA Final thoughts**
- **Closing**

MA Workshop

- 9:00am-12:15pm**
- 12:15-1:00 Lunch break**
- 1:00-3:00pm**

Welcome !

- **MassDOT, Carrie Lavellee**
- **ACEC/MA, Abbie Goodman**
- **CIM, Jeff Mahoney**
- **FHWA, Ken Coelho & Kat Weisner**



FHWA's Intro to PDB

- **Part 1: the What, How, When, Where, Who, & Why of PDB**
- **Part 2: Federal-aid Project Considerations, Best Practices, & Lessons Learned**
- **Part 3: Quiz the Fed ...**



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RESOURCE CENTER
Office of Innovation Implementation

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WHAT ... is Progressive Design-Build (PDB)?

- A progressive or **stepped** procurement and contracting approach for design and construction
- The owner and Progressive Design-Build team **progress** the design together towards a contract scope, schedule, and price
 - Incorporate details desired by the owner
 - Provide owner with cost input regarding options the owner is considering
 - **Open-book** approach enables the owner to make well-informed decisions on the overall quality and results of the project.
 - Align expectations up front **before** executing the work of design and construction



WHAT ... is Progressive Design-Build (PDB)?

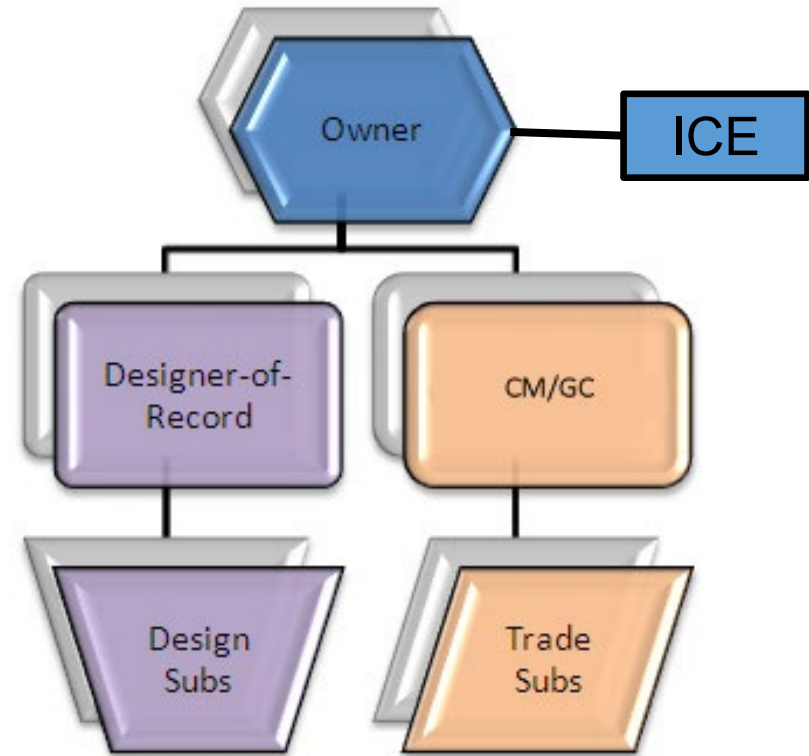
- Uses a qualifications-based or best-value selection **before** substantial design is completed
- **Defer** price, schedule, and performance commitments until **after** design has been sufficiently defined.



Comparison of ACMs...

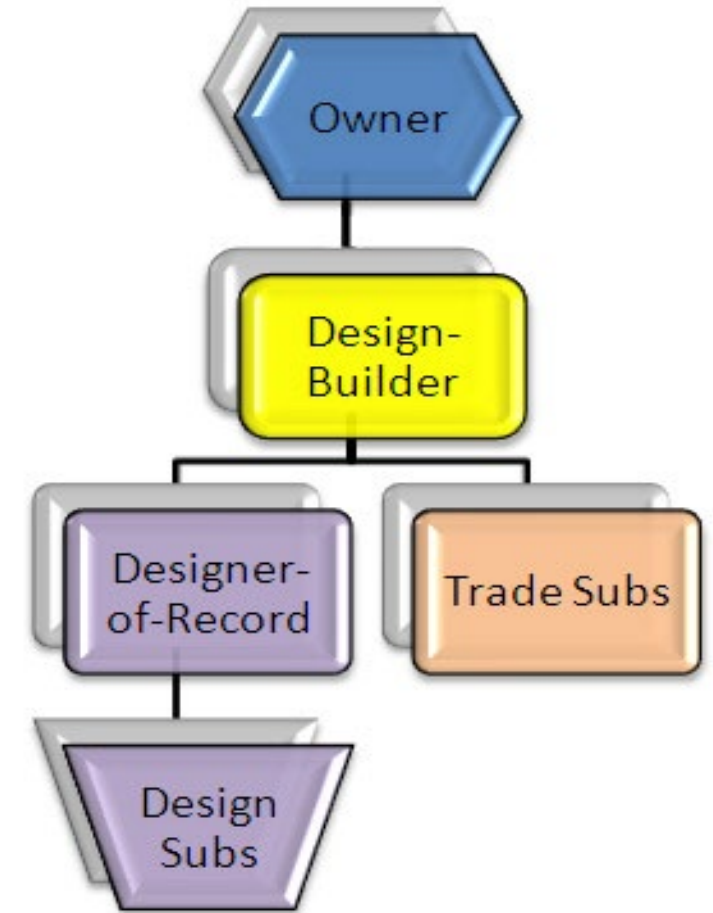
1st consider the CM/GC Delivery Method

- Owner contracts with Designer-of Record
- Owner retains an ICE
- Owner has a Two-Phase contract with Contractor:
 - Phase I:
Construction Advisor
 - Phase II:
Prime Contractor



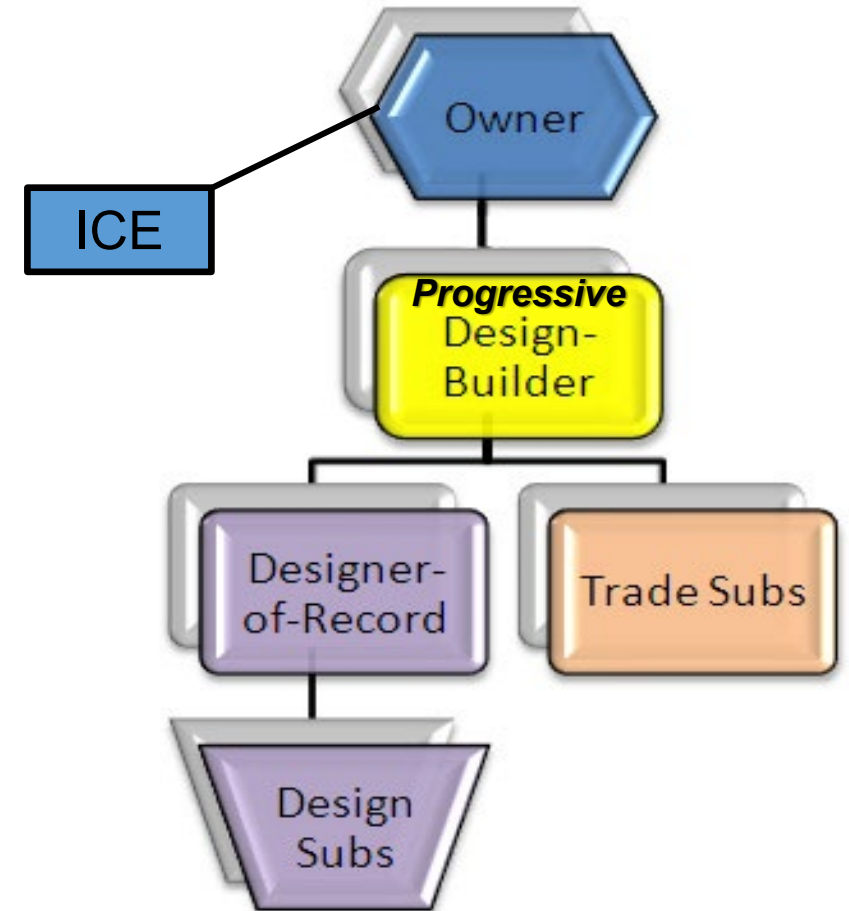
Next, recall 'traditional' DB

- **Owner completes Phase 1 work**
 - Phase I:
Preliminary Design & Engineering
- **Owner has a contract with the Design-Builder for Phase 2 work, Design and Construction**
 - Phase II:
Final Design and physical Construction of a defined scope at the bid price
(Low bid, Best-Value, etc selection, 23CFR636.201)



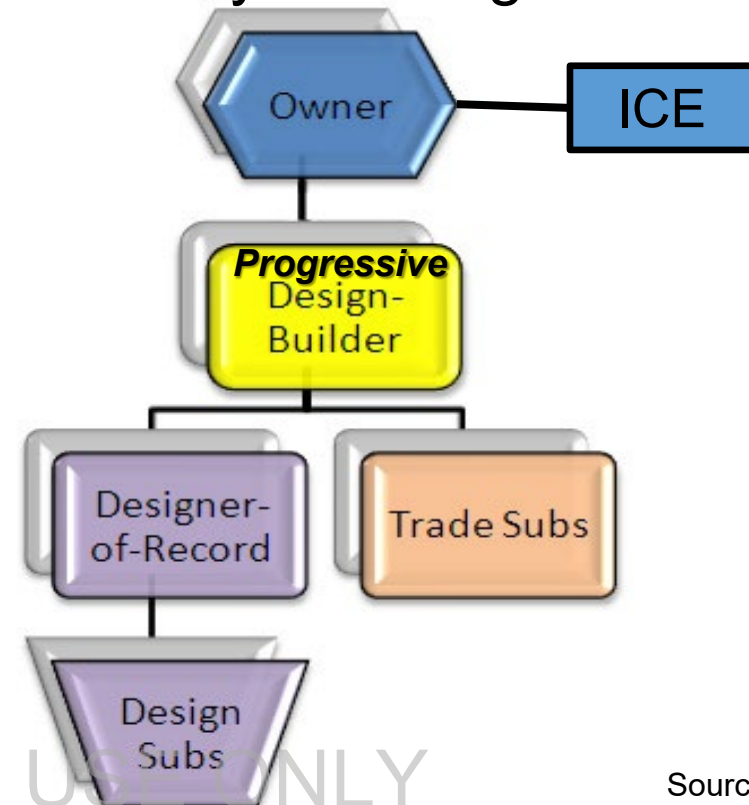
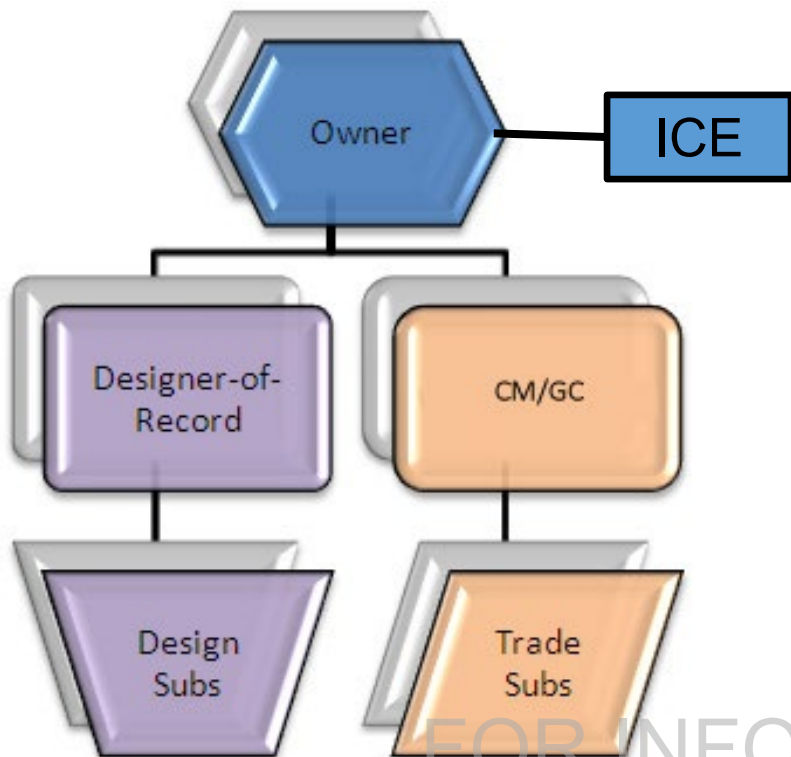
PDB is a hybrid of CM/GC & DB

- Owner contracts with Progressive Designer-Builder
- Owner has a Two-Phase contract with Progressive Design-Builder:
 - Phase I: Preliminary Engineering and Design
 - Phase II: Final Design and Construction
- Progressive Design-Builder contracts with Subs for Design **and** Construction
- Owner retains an Independent Cost Estimator (ICE)



WHAT is the difference between PDB and CM/GC?

- Answer = the Parties of the Contract(s)
 - CM/GC = the StateDOT has **separate contracts** with Designer of Record and the Prime Contractor. The StateDOT is the “middle-man”.
 - PDB = the StateDOT has **one contract** with an entity for design & construction



HOW ... CM/GC Delivery Method

PRE-CONSTRUCTION
Construction
Manager

Preconstruction Services

- Develop cost model
- Constructability Review
- Early Schedule Development
- Early Material Procurement
- Construction Planning
- ROW Acquisition
- Third Party Issues (Utility, ROW, RR)

CONSTRUCTION
General
Contractor

Construction Services

Price Agreement: TMP or GMP



HOW ... PDB Delivery Method



Source: FHWA

Design & Construction

Progressive Design Builder

Design & Trade Subcontractors

Design & Construction Services

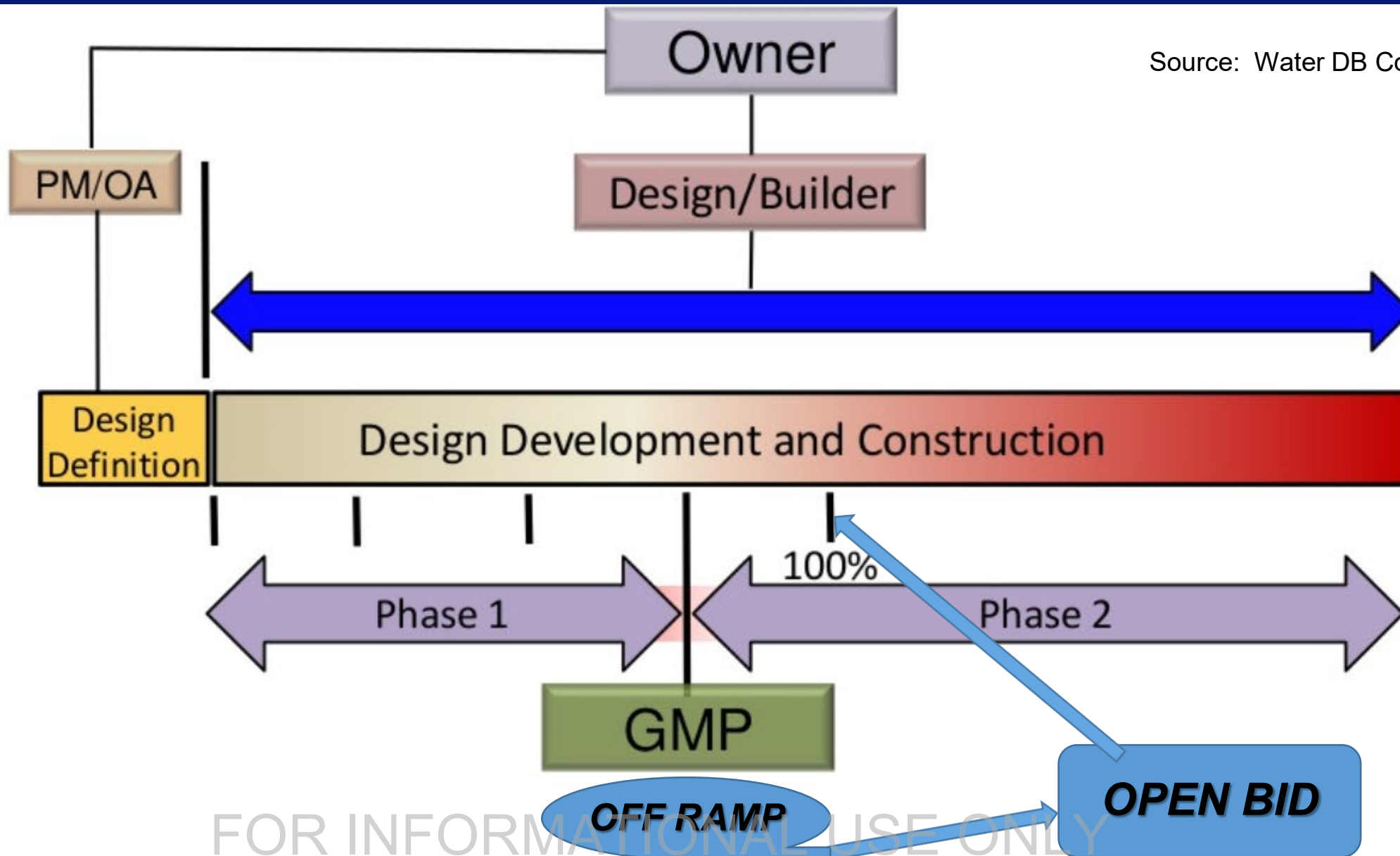
- Develop Complete Design
- Develop Schedule
- Develop Costs
- Early Material Procurement
- Early Work Packages
- ROW, RR and Utilities
- Resolve Third Party Issues
- Price Agreement, GMP



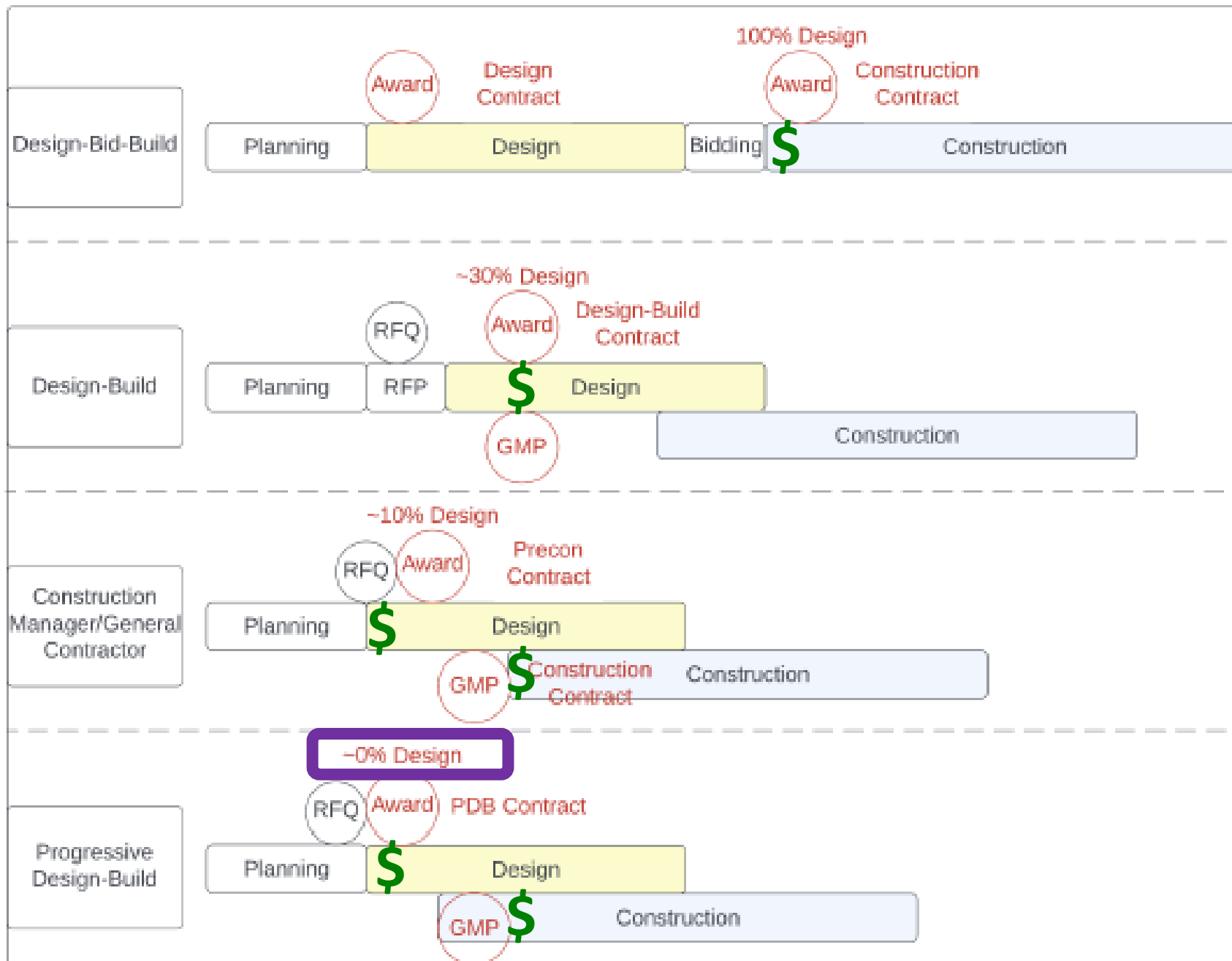
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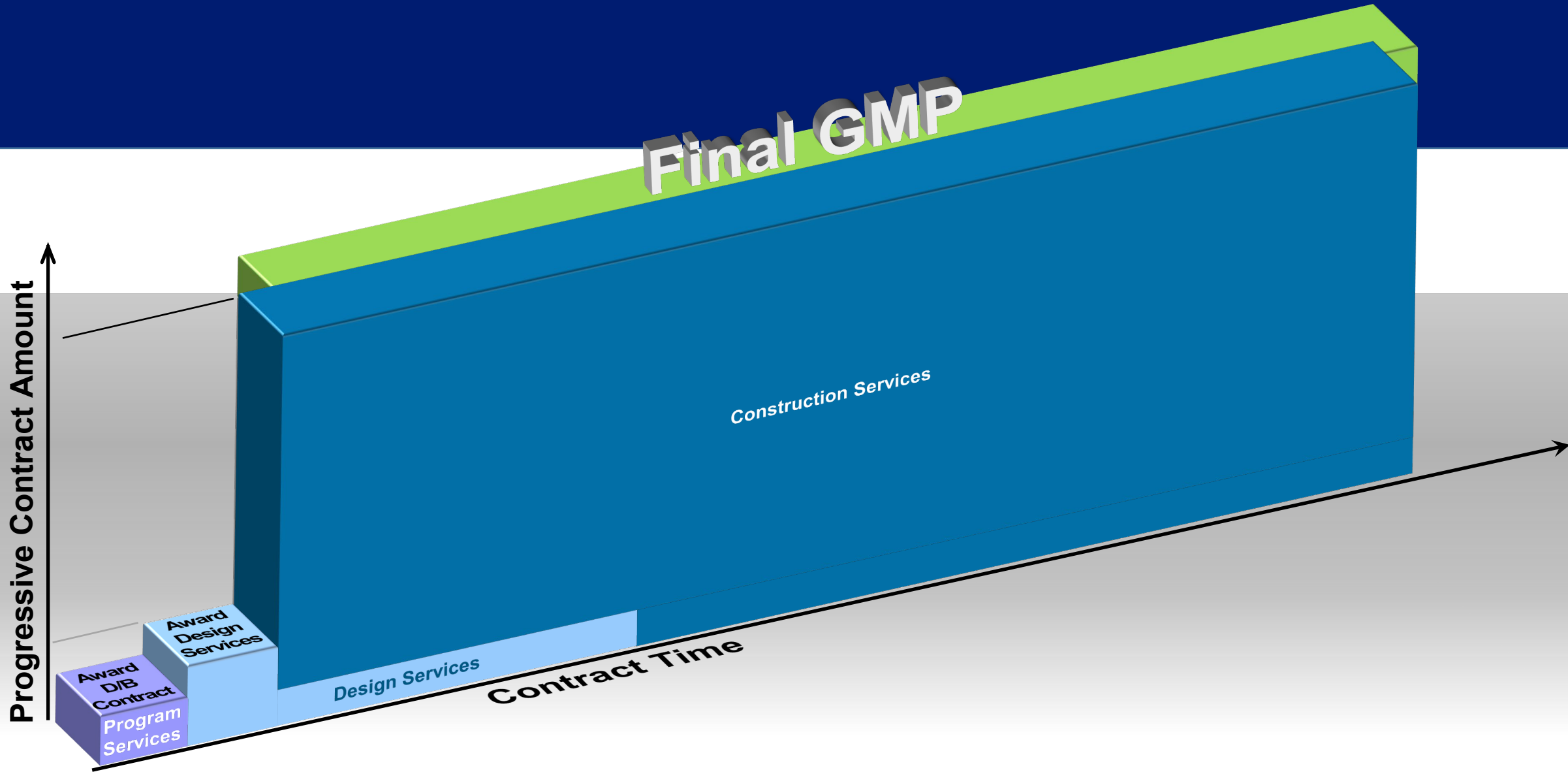
HOW does PDB work?

Source: Water DB Council



...Comparison of Project Delivery Methods





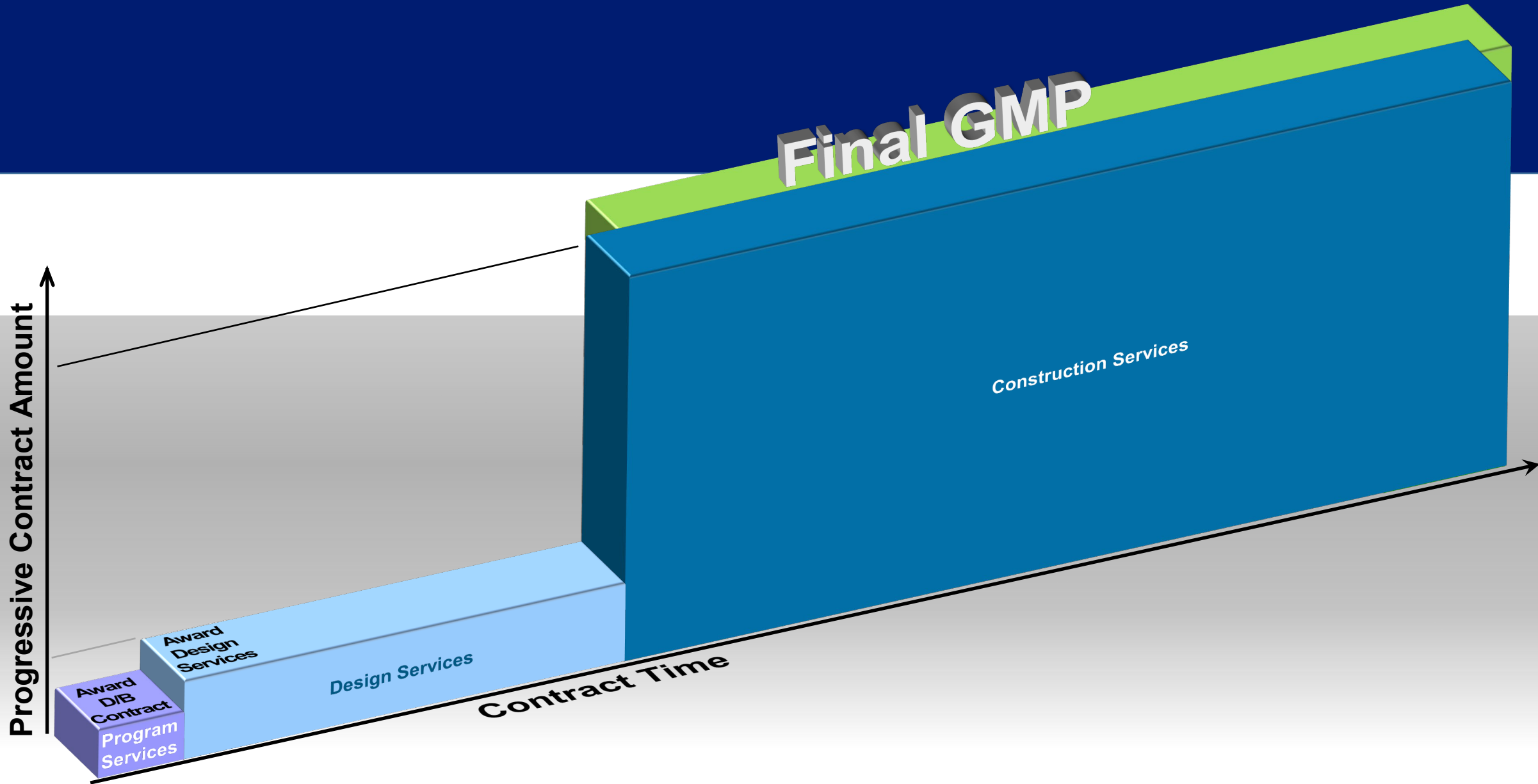
Source: DBIA Office of Innovation Implementation

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Source: DBIA Office of Innovation Implementation

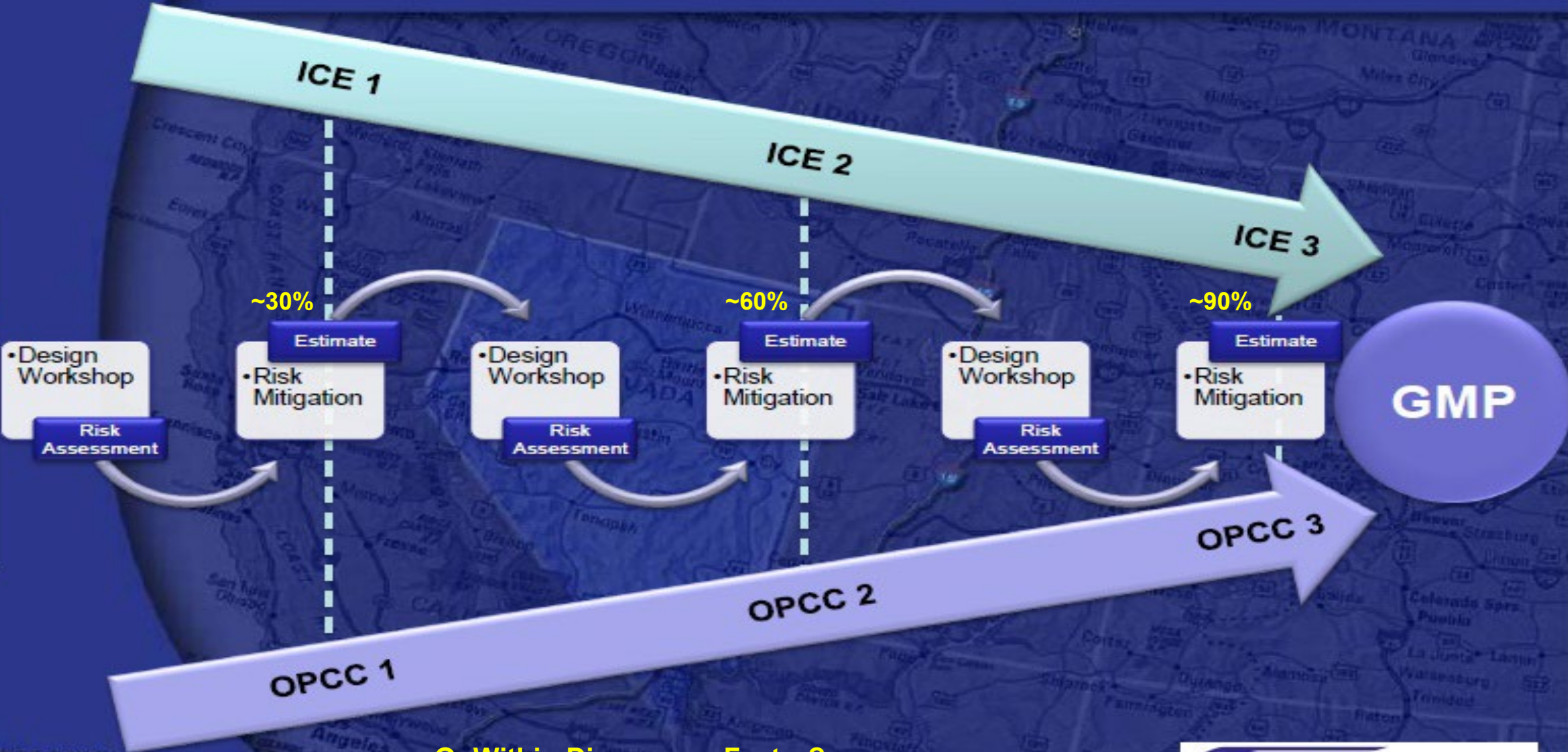
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Partnering



Q: Within Divergence Factor?
Q: Price certainty (Construction cost + Risk < Budget)



Source: Nevada DOT

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CM/GC & PDB delivery methods

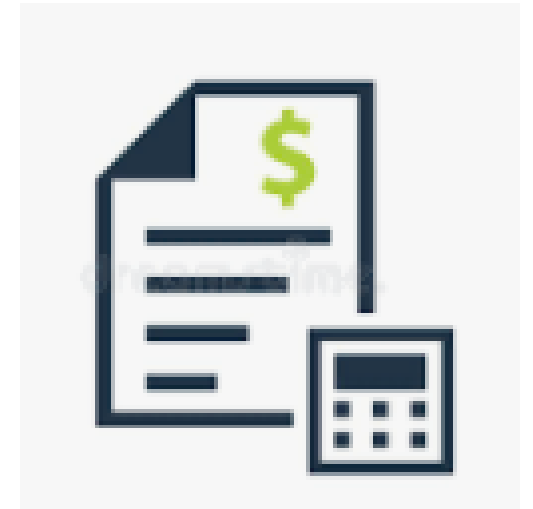
Independent Cost Estimator (ICE)

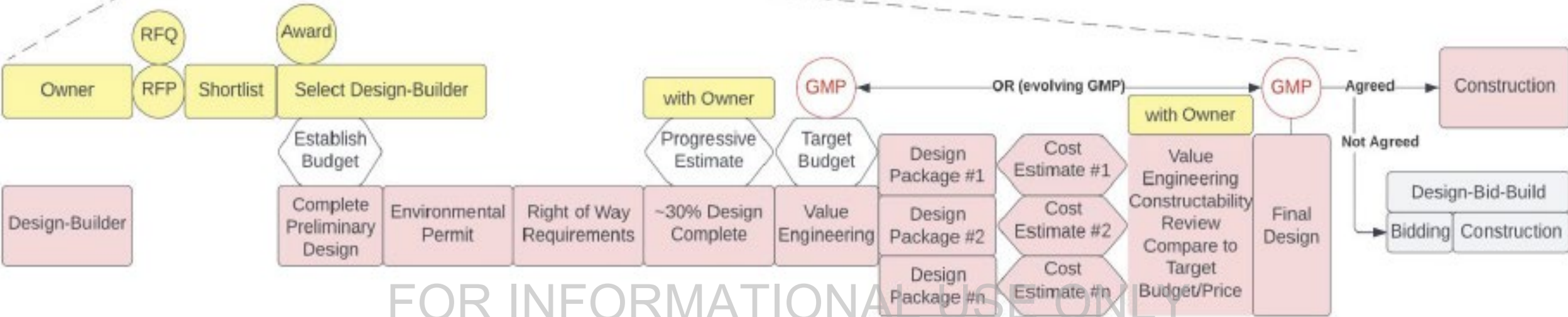
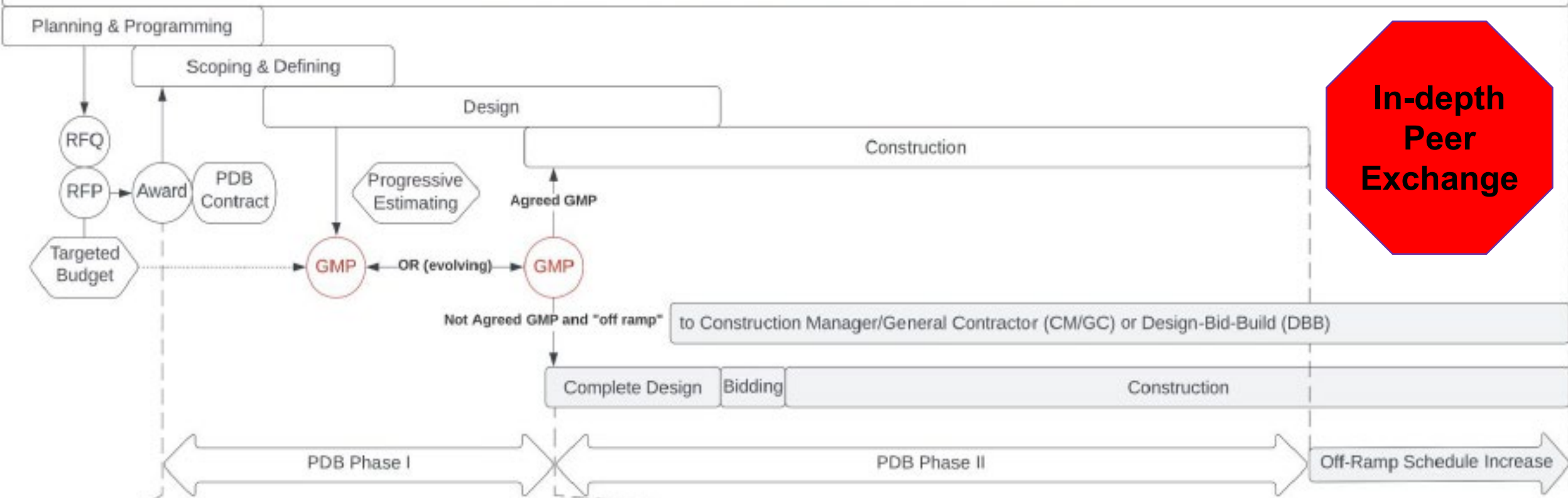
✓ Qualifications:

- Contractor experienced in developing cost-based estimates
- No conflict of interest
- Qualifications based selection

✓ Role

- Participate during the design
- Provide project costs
- Assist the DOT in negotiations
- Validate fair price
 - **If Phase 1 is awarded before NEPA is complete, Federal regulation requires:**
 - **Owner Agency's Price Reasonableness finding per 23CFR636.302(a)(1)(iv)**





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WHEN NOT to use PDB ...



... Scope of work ...

- Design has advanced tooooooooooooooooooooooooooooooo far
- Owner wants **heavy** input to the design
- Ridged owner specification requirements **inhibit** the PDB Team's ability to innovate and/or use flexibility in design choices
- “Cookie-cutter” projects
- Project too small to attract competent competitors
- If Final Design must be completed before:
 - An accurate estimate of costs can be developed
 - Approval to proceed with any construction is issued

WHEN NOT to use PDB ...

Source: Adobe stock



... Funding ...

- To **obligate** Federal-aid funds before they expire
- To meet Terms and Conditions of Federal Grants for **obligation** and/or **expenditure** of funds

... because leadership says so



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WHEN ... should we use PDB?



- Recommend use of the FHWA CASE Webtool:

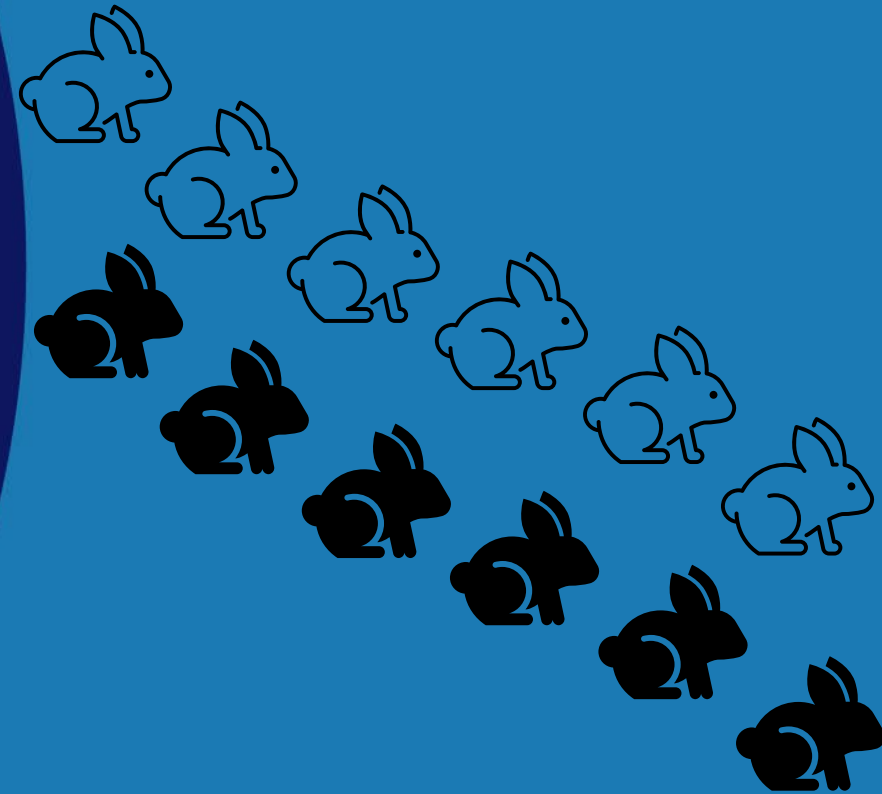
<https://www.case.fhwa.dot.gov>



- Best used for projects where the Owner Agency:
 - Is uncertain regarding the best design to deliver the project
 - Needs significant contractor input on a complex design
 - Is seeking innovative designs
 - Has significant scope, schedule, and/or budget constraints



Quick hop down a bunny trail ... What's the best contracting method for my project?



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Source: PPT icon



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CASE Webtool <https://www.case.fhwa.dot.gov>



Sign In

CASE Webtool

Contracting Alternatives Suitability Evaluator

FHWA's CASE Webtool helps State, local, and tribal highway agencies evaluate and document the risk and value associated with various alternative project delivery methods (design-build, progressive design-build, construction manager/general contractor, Public-Private Partnerships (P3s)). [Learn more.](#)

Recommended Browsers: Google Chrome, Microsoft Edge, Mozilla Firefox

New to CASE Webtool?

Get Access

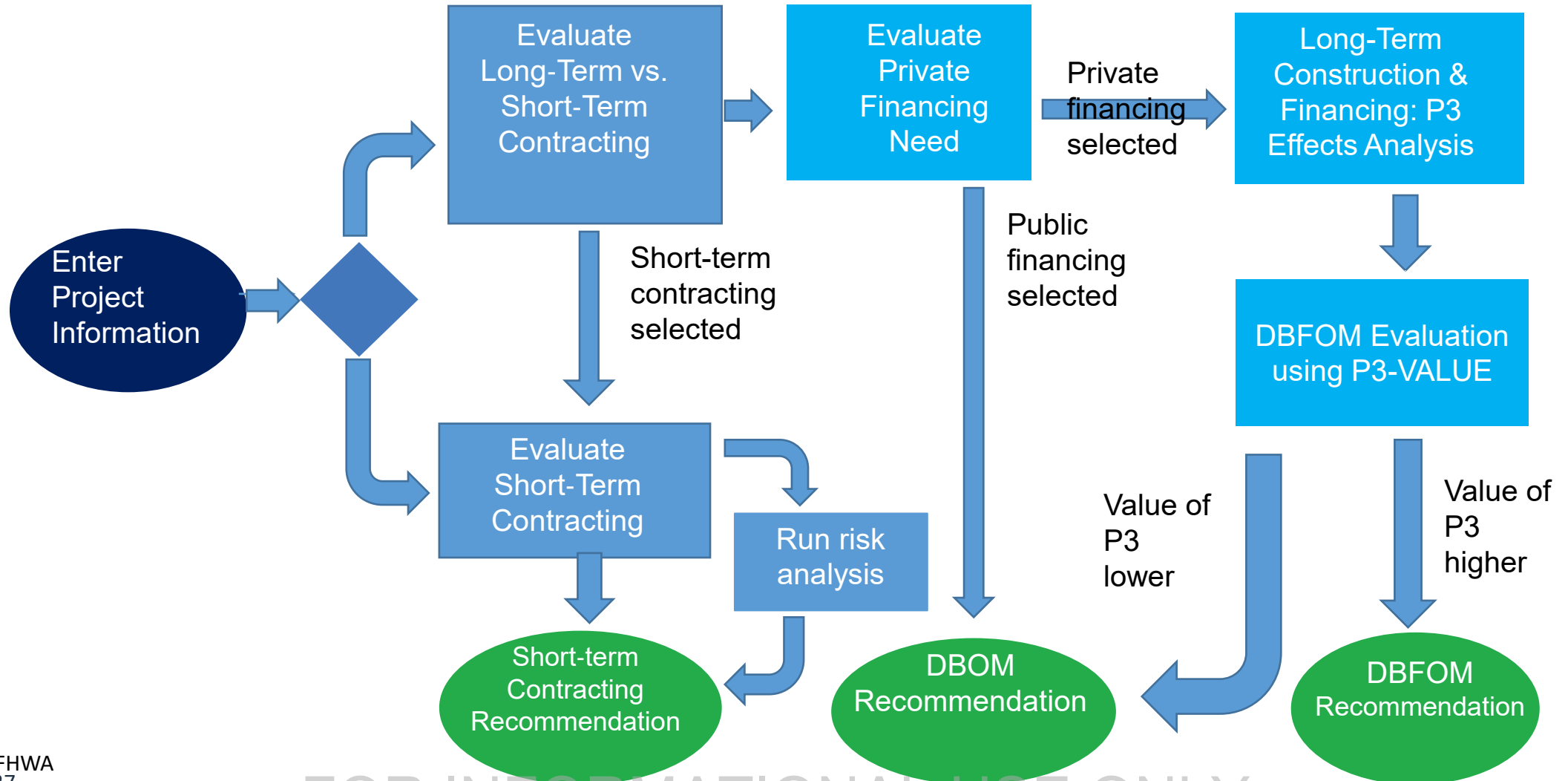
Source: FHWA

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TRANS
SERVICE

USDOT/Gem

CASE Tool: Evaluation Process



Risk Mitigation Sample Output

Risk Mitigation Decision Matrix

Select the ACM methods for Risk Mitigation i

DBB

CMGC

DB

PDB

Risk Description

Risk Rating i

Ability to Mitigate through Delivery Method i

DBB

CMGC

DB

PDB

Environmental impact statement (EIS) required	8			Advantageous to M ∨	Advantageous to M ∨
Unforeseen delays due to utility owner and third-party	1			Costly to Manag ∨	Reasonable to M ∨
Railroad involvement	6			Costly to Manag ∨	Reasonable to M ∨
Lack of coordination/ communication	9			Reasonable to M ∨	Advantageous to M ∨
Community relations	12			Reasonable to M ∨	Reasonable to M ∨
Project complexity - scope, schedule, objectives, cost, and del	9			Reasonable to M ∨	Advantageous to M ∨
Maintenance of Traffic/ Work Zone Traffic Control	8			Reasonable to M ∨	Reasonable to M ∨

CASE Webtool Training?

- General Information Sessions
 - Online
- Project Specific Workshops
 - By request, online or in-person
- Contact: Bryan Dillon, FHWA-RC
 - Bryan.Dillon@dot.gov
 - Office cell: 202.875.4155



Image credit: FHWA

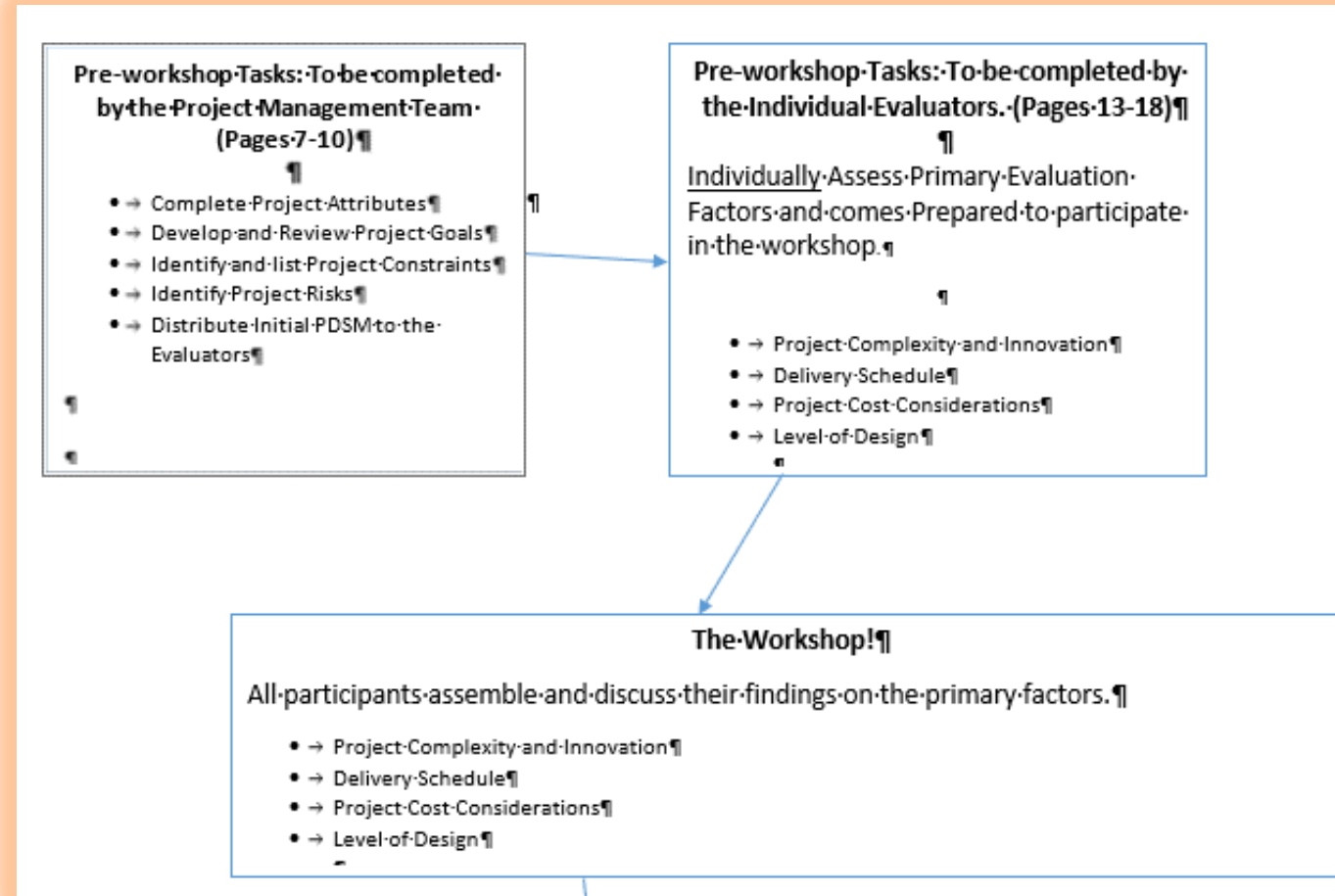


StateDOT versions of CASE

Colorado DOT

- Project Delivery Selection Workshop
- <https://www.codot.gov/business/alternativedelivery>

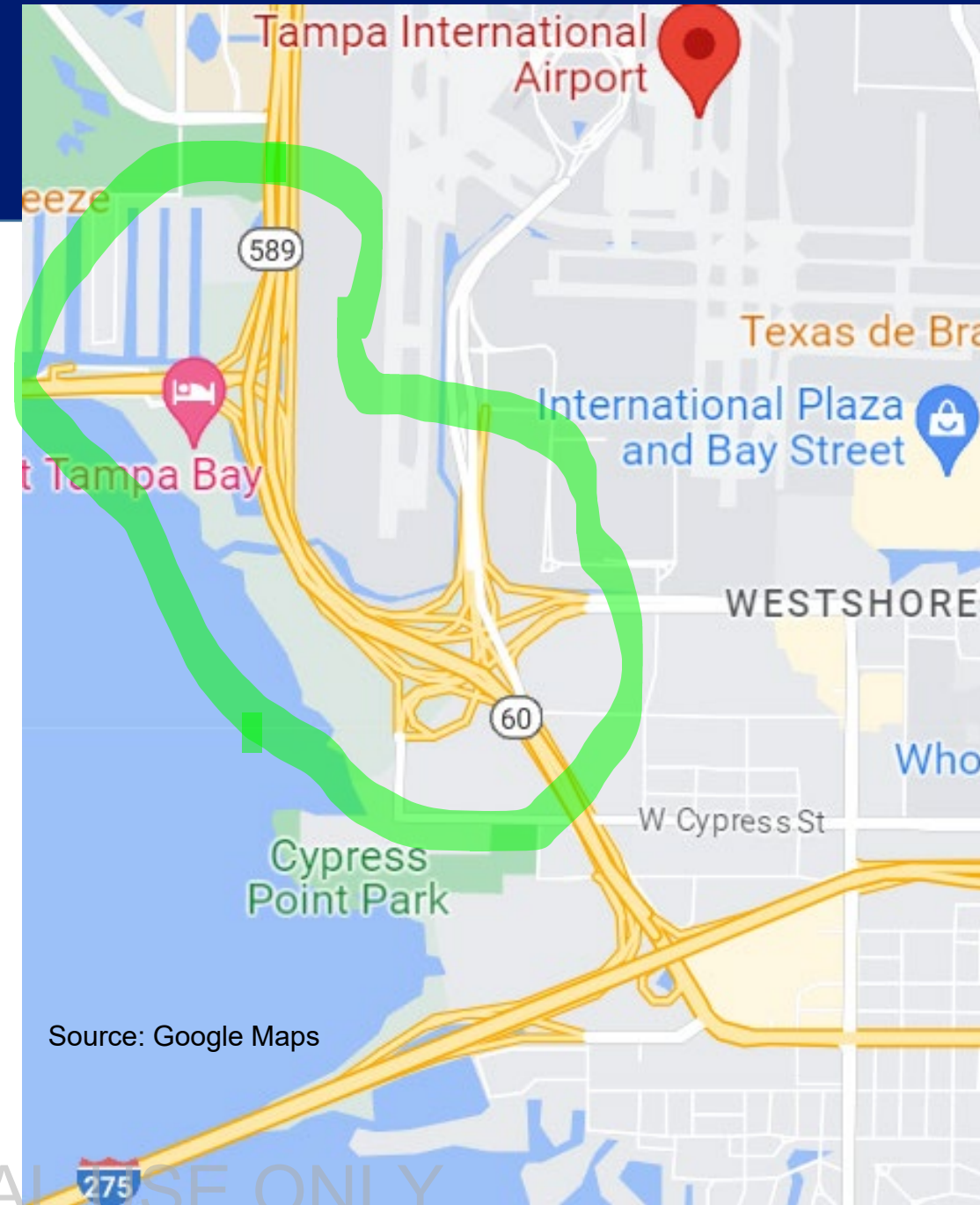
Rating Key	
+++	Most appropriate delivery method
++	Appropriate delivery method
+	Least appropriate delivery method
X	Fatal Flaw (discontinue evaluation of this method)
NA	Factor not applicable or not relevant to the selection





WHERE is PDB being used?

- Non-Highway
 - Vertical facilities
 - Water & Waste-Water
 - Airports (BNA, SFO)
 - Transit/Multimodal facilities
- Highway
 - non-traditional or “major” projects
 - ITS, Safety/LOS/Congestion Mgmt
 - Corridor upgrades
 - Complex NEPA (ex: Fish Passages)
 - Complex interchanges
 - Multimodal facilities
 - Atypical bidding environment



WHO is using PDB (FA)?

- stateDOTs are...
 - AL, AR, FL, KY/OH, OR, MD, NH, UT, VA, VT, WA
- Local Agencies, too...
 - LA Metro
 - City of Tampa, FL
 - Jefferson County, CO
 - City of Wenatchee, WA
- SEP-14's approved:
 - AK, AL, CA, FL, KY, MI, OH/KY, VT, WA
- Thinking about it...
 - MI, CO, AZ, CA, LA, NJ, TN, AK

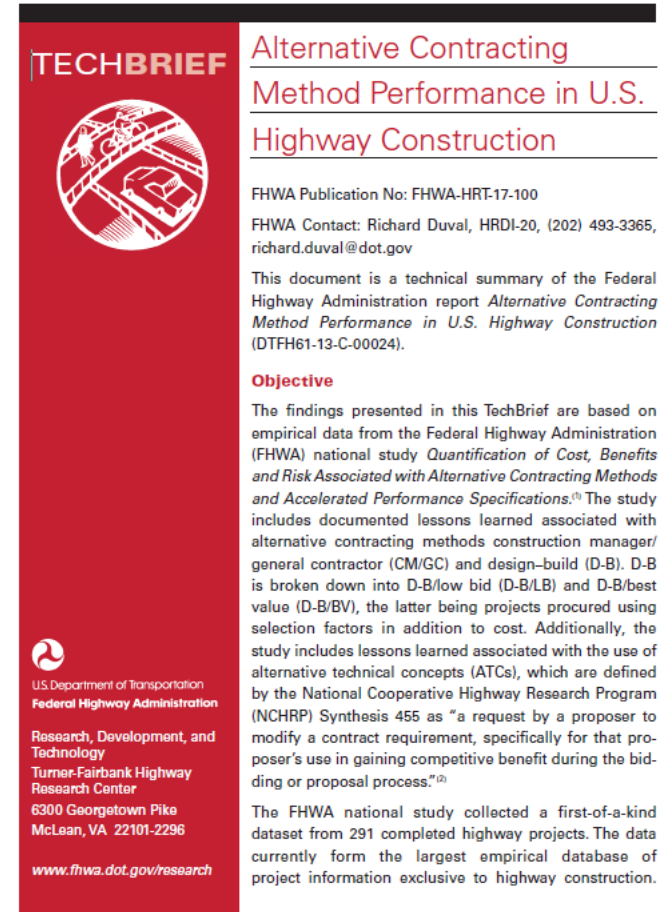
➤ FL DOT's award:

<https://theconstructionbroadsheet.com/lanesuperior-jv-wins-b-florida-interchange-project-p1315-175.htm>



WHY use Alternative Contracting Methods?

- FHWA funded study, published in 2017:
 - Agencies using ACMs on all project sizes
 - ACMs delivered **40-60% time savings** on projects studied
 - ACM **cost certainty** was significantly **earlier**
 - ACM **project intensity** was significantly **higher**
 - Award growth, cost growth and schedule growth were comparable to traditional DBB method



TECHBRIEF

Alternative Contracting Method Performance in U.S. Highway Construction

FHWA Publication No: FHWA-HRT-17-100
FHWA Contact: Richard Duval, HRDI-20, (202) 493-3365, richard.duval@dot.gov

This document is a technical summary of the Federal Highway Administration report *Alternative Contracting Method Performance in U.S. Highway Construction* (DTFH61-13-C-00024).

Objective

The findings presented in this TechBrief are based on empirical data from the Federal Highway Administration (FHWA) national study *Quantification of Cost, Benefits and Risk Associated with Alternative Contracting Methods and Accelerated Performance Specifications*.⁽¹⁾ The study includes documented lessons learned associated with alternative contracting methods construction manager/general contractor (CM/GC) and design-build (D-B). D-B is broken down into D-B/low bid (D-B/LB) and D-B/best value (D-B/BV), the latter being projects procured using selection factors in addition to cost. Additionally, the study includes lessons learned associated with the use of alternative technical concepts (ATCs), which are defined by the National Cooperative Highway Research Program (NCHRP) Synthesis 455 as “a request by a proposer to modify a contract requirement, specifically for that proposer’s use in gaining competitive benefit during the bidding or proposal process.”⁽²⁾

The FHWA national study collected a first-of-a-kind dataset from 291 completed highway projects. The data currently form the largest empirical database of project information exclusive to highway construction.

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Federal Highway Administration
Research, Development, and Technology
Turner-Fairbank Highway Research Center
6300 Georgetown Pike
McLean, VA 22101-2296
www.fhwa.dot.gov/research

Source: FHWA

WHY ... Top 10 Reasons to use PDB & CM/GC



- 1) Innovation
- 2) Risk Reduction & Allocation
- 3) Aggressive Delivery
- 4) Cost Control
- 5) Team Selection
- 6) Constructability
- 7) Streamlined Plans
- 8) Quality (design *and* construction)
- 9) **Early Work Packages (...aka progressive)**
- 10) Flexibility in Changing Project Scope



WHY ... Advantages & Disadvantages of PDB

Source: Washington State University

Advantages-Owner

- Expedited procurement
- Increased owner input
- Design to Budget
- Reduce duplication of effort (PE)
- Partnerships
- Spearin liability

Advantages-PDBTeam

- Low cost to pursue
- Early collaboration and influence over design (PE & Final)
- Risk reduction and mitigation
- Cost development is part of the process

Disadvantages

- Restriction in state and local procurement laws
- Award without full competition on the **overall** price
- Subcontractor & DBE procurement challenges
- Owners' knowledge, readiness, & preferences

Part 2:

- **Federal-aid Project Considerations**
- **Best Practices & Lessons Learned**



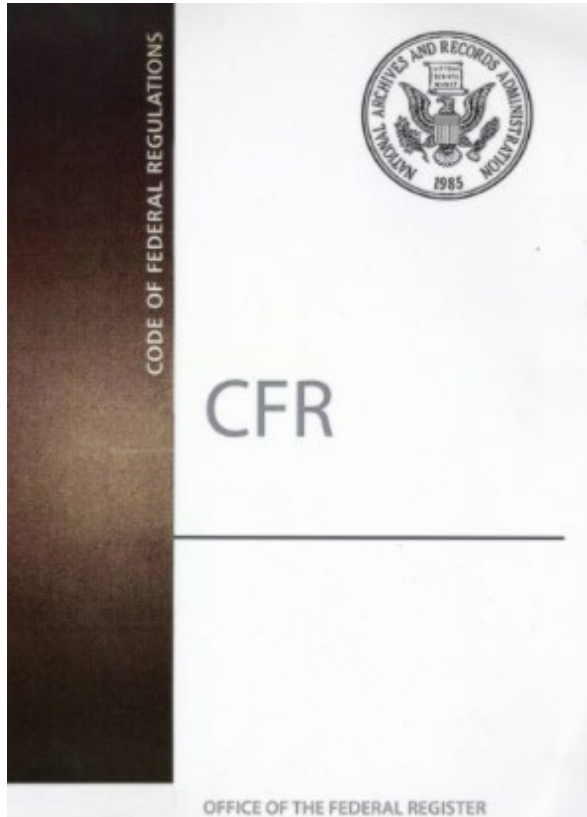
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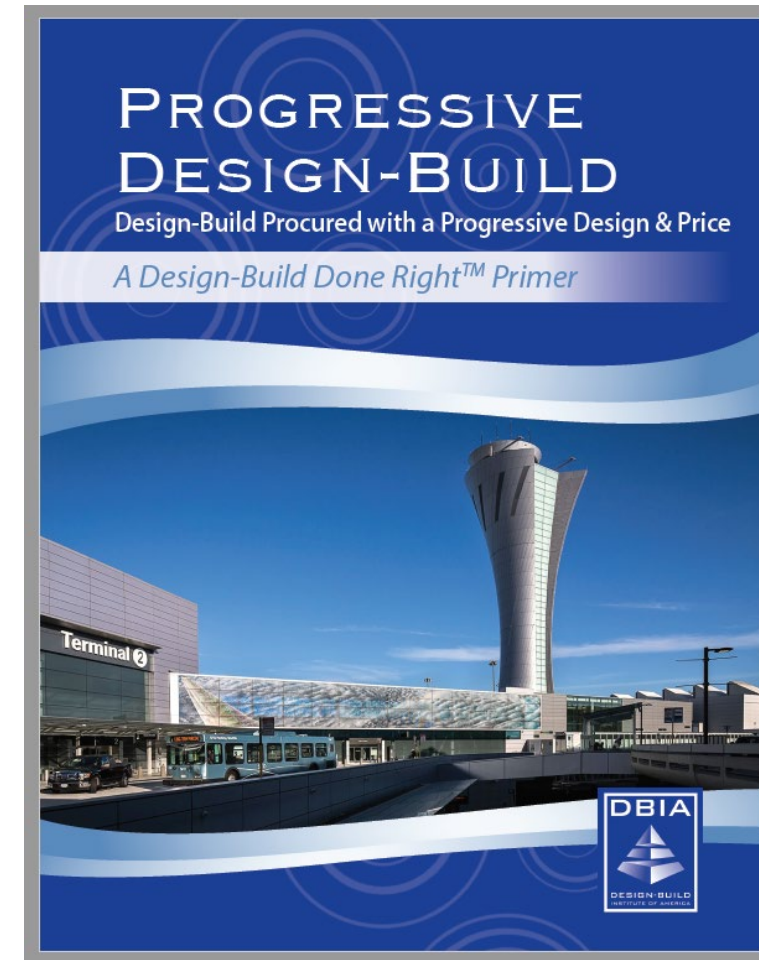
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From a Federal-aid perspective, how does PDB work?

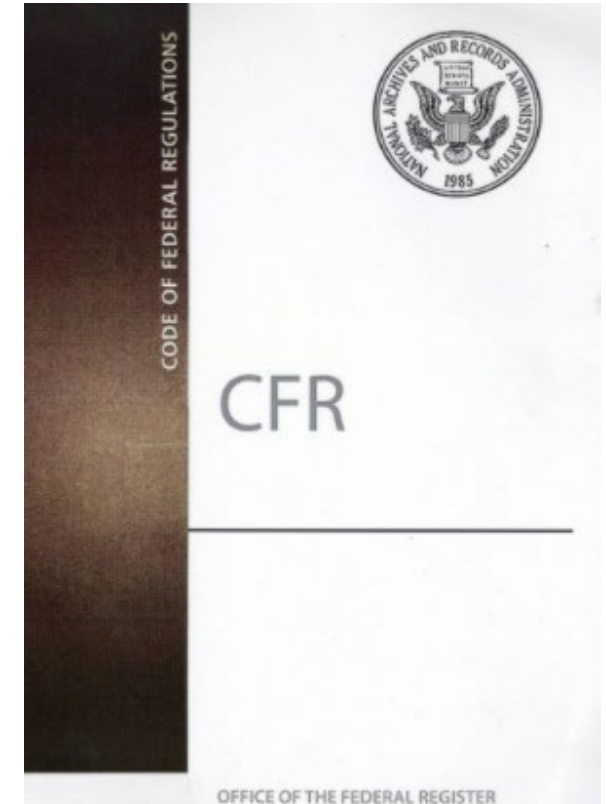


- No new Federal Regulations
- 23 CFR Part 636, Design Build Contracting still applies
 - *“an agreement that provides for design **and** construction of improvements by a contractor or private developer.”*
- DBIA, “Progressive Design-Build” Primer



23CFR636 – Design-Build Contracting

- 636.110: States may use their own procedures for the solicitation and receipt of proposals (RFQ, RFP, instructions, etc)
- 636.116: Conflict of interest should be specified or referenced in the RFQ/RFP and for engineering services
- 636.2xx: Selection Procedures and Award Criteria
- 636.3xx: Proposal Evaluation Factors
 - Price factors dependent upon NEPA process



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Source: FHWA



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... the Federal-aid “catch” on PDB ...

- Use of PDB in the Federal-aid highway program depends on the status of the NEPA process relative to the procurement process.
 - **NEPA NOT complete** before procurement
 - Per 23 CFR 636.302(a)(1)(i), it is not necessary to evaluate the total contract price in the selection therefor SEP-14 is not required
 - **NEPA complete** before procurement:
 - 23 CFR 636.302(a)(1) requires the evaluation of **price** in the selection of the successful firm, therefor...
 - the Federal-aid project would require an SEP-14 approval, since selection is based on qualifications/experience, and not a **price** for all services.
 - We do not know the **price** (GMP) at Award, therefor we are unable to evaluate it!!!



PRICE what, we're soooooo confused???

- *If NEPA is completed*, owner must evaluate **PRICE** in the selection
- **PRICE** is the total contract cost to design and construct the project
 - DB = True, this price is known at Award
 - PDB = False, this price is unknown at Award
 - Will only have and evaluate price for payments made under Phase 1
 - Rates for design and construction management
 - Conceptual/Target Price for construction of the project as defined in the RFP
- If NEPA is complete, the “False” requires an exemption to the regulation via an SEP-14 work plan and approval from FHWA to use PDB
- If NEPA is not complete, the “False” requires a finding of price reasonableness by the contracting agency per 23CFR636.302(a)(1)(iv) for Phase 2, the GMP.

CAUTION: Federal Discretionary Grants

Question: Is your Project “*Shovel Ready*”???????????

TIGER
IX AWARDS



Source: FHWA

RAISE Grants
Rebuilding America Infrastructure with Sustainability and Equity

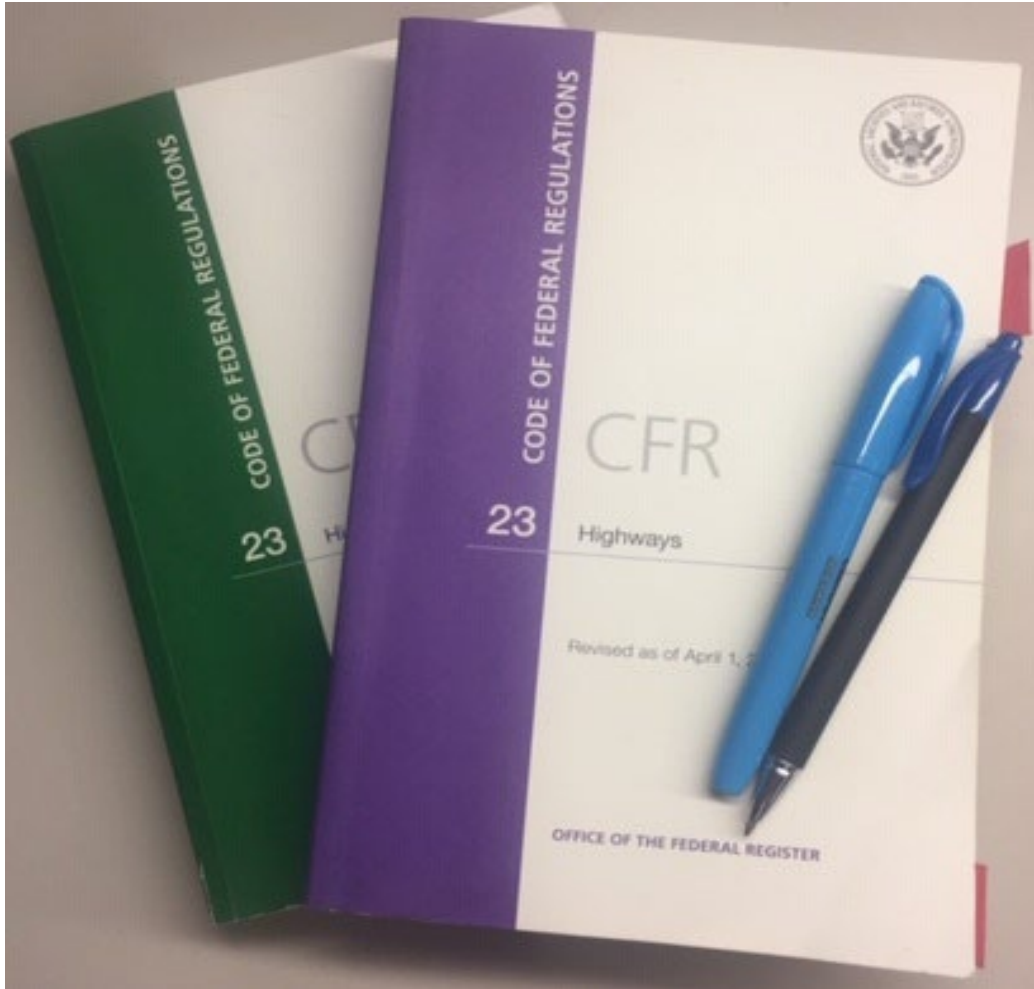
BUILD Grants
Better Utilizing Investments to Leverage Development
Transportation Discretionary Grants Program

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CAUTION: Federal-aid Discretionary Grants Grant Agreements

- General Terms and Conditions
 - RAISE FY 2021
 - Article 8.1 Purpose
 - (1) timely completing the Project
 - Article 10.4 Project Delivery
 - (a) The recipient shall complete the Project under the terms of this agreement.
 - Article 11.2 Federal Obligation
 - (f) “...not later than **September 30, 2024**... (2) that all applicable Federal requirements for obligating the amount are satisfied”
 - **(h)(2) any portion of the RAISE Grant that is not obligated under this section 11.2 before October 1, 2024, lapses on that date and becomes unavailable for the Project.**
 - Article 21.2 Funds Cancellation
 - Outstanding FFY 2021 RAISE Grant balances **are cancelled by statute after September 30, 2029 and are then unavailable for any purpose, including adjustments**

Federal-aid Considerations



Source: FHWA

- **Critical Action Points**

- NEPA
- PS&E package (RFQ & RFP)
- Authorization to Purchase ROW
- Utility, RR, and ROW certification
- Authorization to Advertise
- Construction Authorization(s)
- Concurrence in Award(s)
- Final Acceptance



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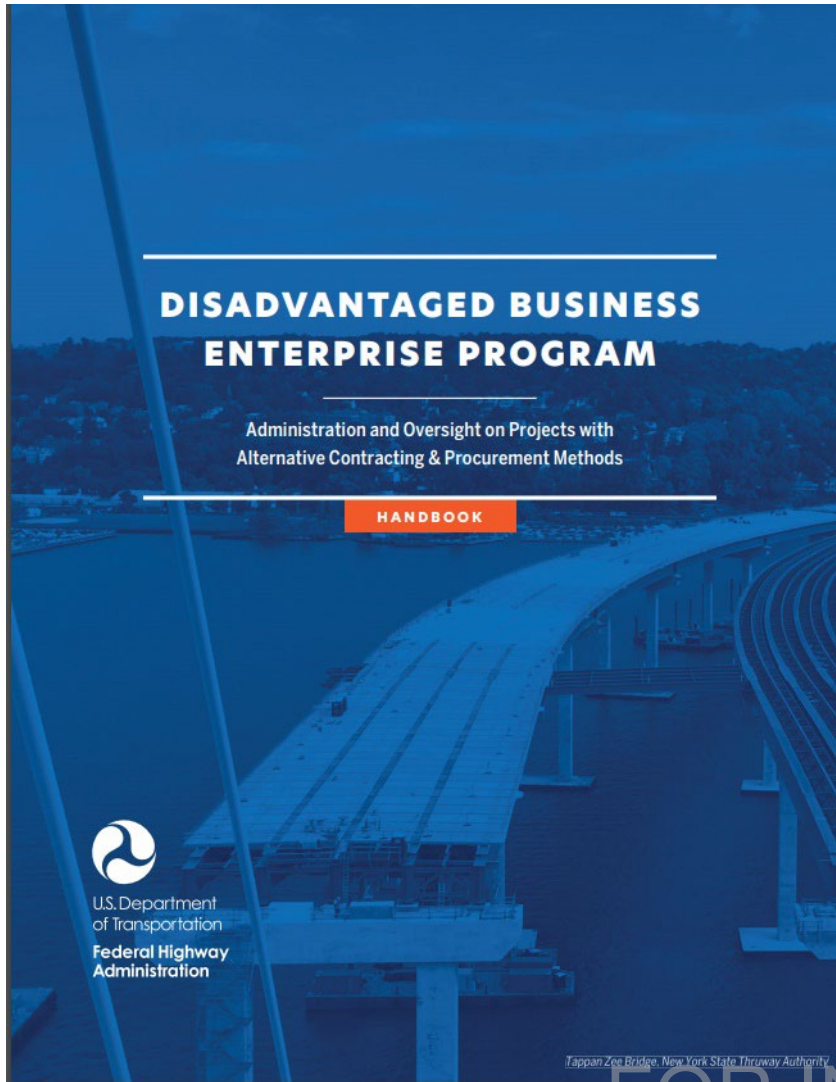


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Likely pattern for PDB...

1. PS&E and Bid Package approval (RFQ)
2. Authorization to Advertise (RFQ)
3. PS&E and Bid Package approval (RFP)
4. Authorization to Advertise (RFP)
5. Concurrence in Award => Phase 1-Preliminary Design
6. NEPA (and Re-Evaluations as needed)
7. Authorization to Purchase ROW
8. Utility, RR, and ROW certification
9. Final Design & Physical Construction Authorization(s) => Early Work packages and Phase 2
10. Concurrence in Award(s) => Early work packages, Phase 2-Construction (or “rejection”, aka Off-Ramp)
11. **Repeat steps 6-10 as needed**
12. Final Acceptance

... ACMs & DBEs



- https://www.fhwa.dot.gov/civilrights/DBEandACM_Handbook/
 - Pre-Award
 - Post Award / During Construction
 - Final Acceptance
- EDC-7 innovation: Rethinking DBE for DB
 - https://www.fhwa.dot.gov/innovation/everydaycounts/edc_7/rethinking_dbe.cfm
 - Open-ended Performance Plans
- FHWA Contact:
 - ChristineThorkildsen@dot.gov



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Source: FHWA

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NEW Requirement: 49CFR26.53(e)

§ 26.53 What are the good faith efforts procedures recipients follow in situations where there are contract goals?

- **(b)** In your solicitations for DOT-assisted contracts for which a contract goal has been established, you must require the following:
 - (1) Award of the contract will be conditioned on meeting the requirements of this section;
 - (2) All bidders or offerors will be required to submit the following information to the recipient, at the time provided in [paragraph \(b\)\(3\)](#) of this section:
 - (i) The names and addresses of DBE firms that will participate in the contract;
 - (ii) A description of the work that each DBE will perform. To count toward meeting a goal, each DBE firm must be certified in a NAICS code applicable to the kind of work the firm would perform on the contract;
 - (iii) The dollar amount of the participation of each DBE firm participating;
 - (iv) Written documentation of the bidder/offeror's commitment to use a DBE subcontractor whose participation it submits to meet a contract goal; and
 - (v) Written confirmation from each listed DBE firm that it is participating in the contract in the kind and amount of work provided in the prime contractor's commitment. Each DBE listed to perform work as a regular dealer or distributor must confirm its participation according to the requirements of [paragraph \(c\)\(1\)](#) of this section.
 - (vi) If the contract goal is not met, evidence of good faith efforts (see [Appendix A of this part](#)). The documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract;

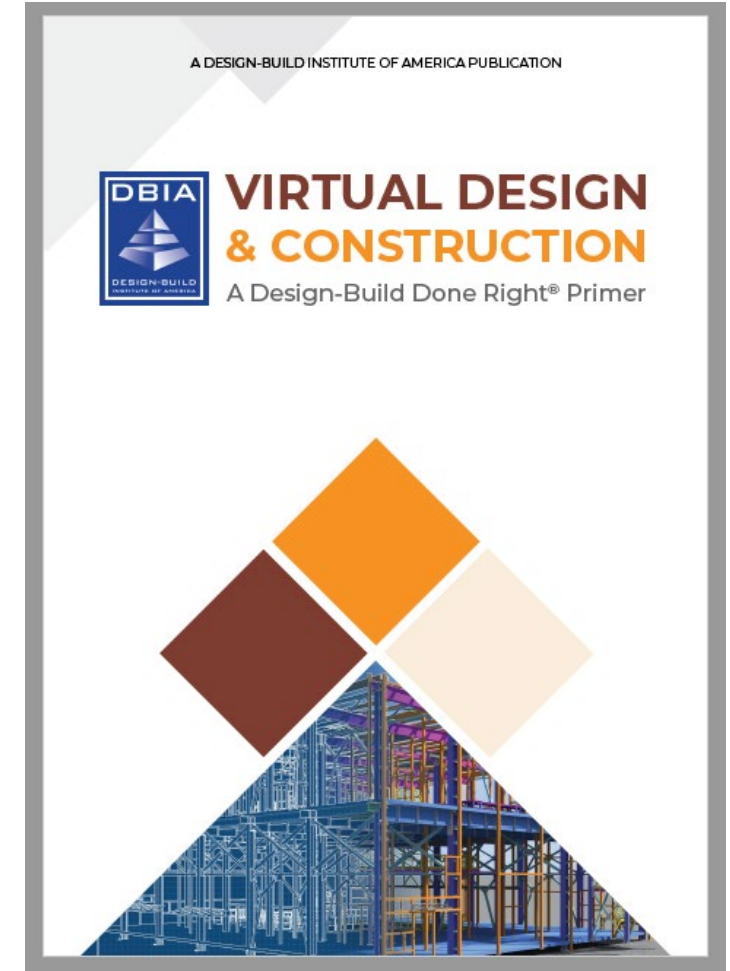
- (e) In a design-build contracting situation, in which the recipient solicits proposals to design and build a project with minimal-project details at time of letting, **the recipient *may* set a DBE goal that proposers *must* meet by submitting a DBE Open-Ended DBE Performance Plan (OEPP) with the proposal. The OEPP replaces the requirement to provide the information required in [paragraph \(b\)](#) of this section that applies to design-bid-build contracts.** To be considered responsive, the OEPP must include a commitment to meet the goal and provide details of the types of subcontracting work or services (with projected dollar amount) that the proposer will solicit DBEs to perform. The OEPP must include an estimated time frame in which actual DBE subcontracts would be executed. Once the design-build contract is awarded, the recipient must provide ongoing monitoring and oversight to evaluate whether the design-builder is using good faith efforts to comply with the OEPP and schedule. The recipient and the design-builder may agree to make written revisions of the OEPP throughout the life of the project, e.g., replacing the type of work items the design-builder will solicit DBEs to perform and/or adjusting the proposed schedule, as long as the design-builder continues to use good faith efforts to meet the goal.



Best Practice & Lesson Learned #1: accept help! ... Design-Build Institute of America



- DBIA is on the FHWA Corporate Membership list – JOIN!!!
- Meetings In-person & Virtually
- Publications
- Community Forums
- Training & Certifications, too!



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PDB BP/LL to date ... the OWNER

Source: Washington State University



Source: PPT images

- 2) Owner's selection process should emphasize qualifications while minimizing cost in the selection evaluation
- 3) Owner should avoid the use of bridging documents except for prescriptive requirements and specifications
- 4) Owner and PDB Team must work in a collaborative environment

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PDB BP/LL to date ... the OWNER

Source: Washington State University



Source: PPT images

- 5) Owner staffing optimized for innovative contract delivery, dedicate staff to innovative delivery methods, mindset, and processes
- 6) Owner must be involved in the design process and ready to make decisions quickly, for items like criteria, contract, needs vs wants, budget/cost/risk, other agency coordination, and 3rd party issues

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PDB BP/LL to Date ... the PDB Team

Source: Washington State University

7) PDB Team must:

- Understand they are responsible for the design and construction
 - Plans and Specifications developed based on the contract's performance criteria
 - Cost and Schedule, too
- Actively manage the preliminary engineering and final design processes
- Provide cost development as the real-time design evolves
- Provide the OWNER's scope with a price to make decisions

8) The “Builder” should be actively involved in the design process

PDB BP/LL to Date ...

9) Key Considerations for using PDB:

- Do you have legal authority???
 - State and local procurement laws
 - Subcontracting and vendors, due to phasing
- Basis for selection
 - 1-step or 2-step (RFQ, RFP)
 - Qualifications or Best-Value (Qualifications + Price)
- Evaluation criteria and scoring methodology
 - Selection has highest probability of achieving an Owner's project objectives
 - Fair, Clear, Transparent

PDB BP/LL to Date ...

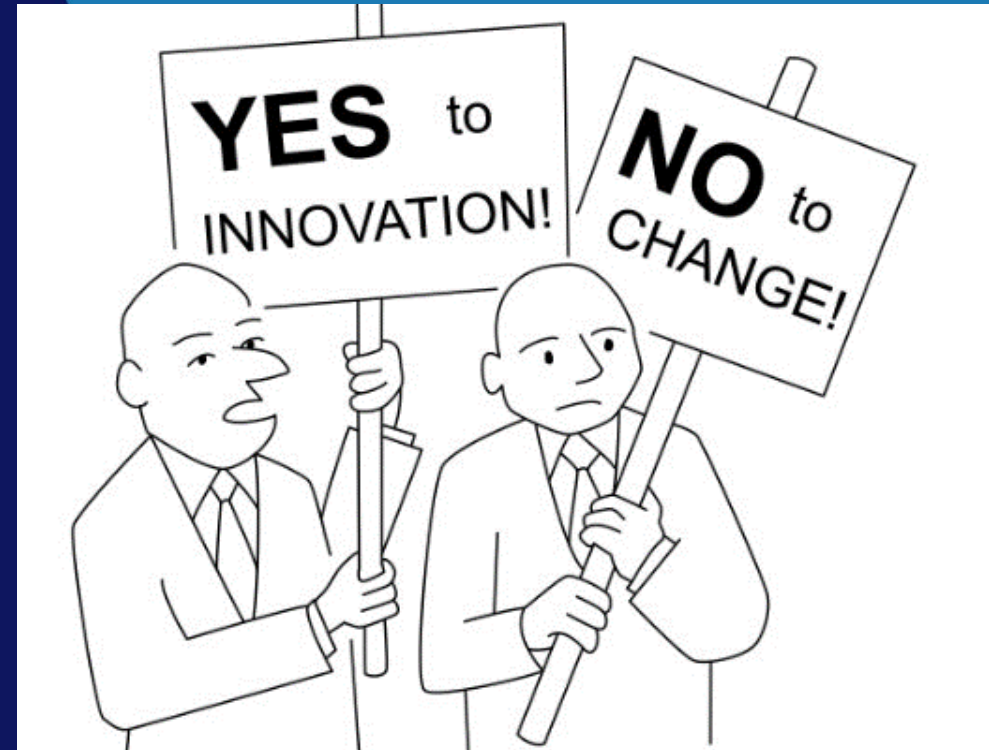
... Key Considerations for using PDB

- StateDOT Team is willing and able to collaborate, be flexible, & **TRUST**
- Bond Market Awareness
 - PDB contract requirements
 - Phased contracting
- Political environment
 - total cost unknown at award
 - “off-ramp” option



Part 3: Quiz the Kat ...

... Let's start with the
pre-submitted
Questions!



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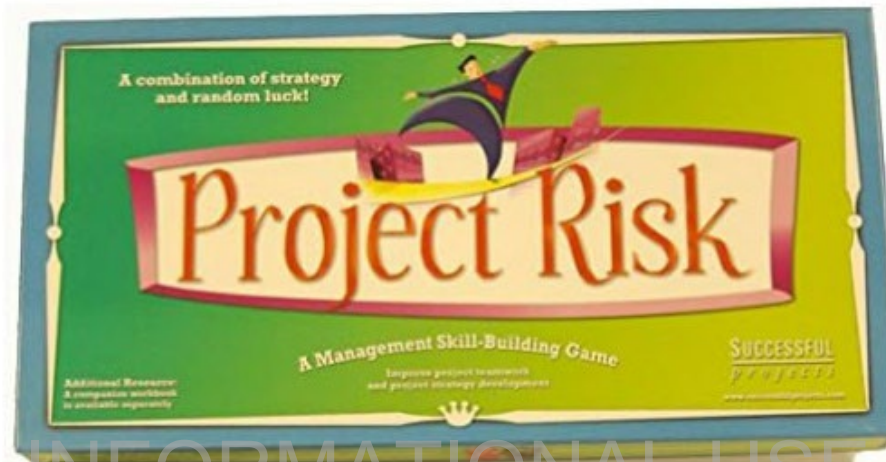
Source: FHWA



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Q#1: Can the FHWA Division delegate actions to the stateDOT for PDB procurement?

- Answer: Yes.
 - However, one would expect a program or project using a “brand-new” ACM to present a **significantly high risk** to the Federal-aid program
 - Is PDB contracting addressed in your current S&O agreement
 - Does your stateDOT have approved process and procedures specific to PDB contracting?
 - How does your S&O PODI criteria address new or non-traditional contracting methods?
 - S&O Manuals and Operating Agreements, Attachment C, change process



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Source: Adobe Stock

Q#2: When the PDB Contractor/Designer team is **chosen**, will there be any **preference** given to the team's MassDOT Experience, Local Staffing, and Local Resources?

Procurement

- 23USC112 & 23CFR635.112 – state **preference shall not be** used on any Federal-aid construction project
- 23CFR172.7(a)(1)(iii)(C) – an in-state preference does not assess the qualifications of potential service providers and application would **limit competition** from qualified out-of-state providers
- 23CFR172.7(a)(1)(iii)(D)(1) – a local **presence may be** used as a nominal evaluation criteria

Labor

- Section 25019(a) of the *Bipartisan Infrastructure Law (BIL)* – “Local Hiring Preference **for Construction Jobs**” – authorizes State and local agencies to implement a local or other geographical or economic hiring preference for labor on federal-aid construction projects

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Q#3: Massachusetts specifics, Procurement

- ❑ What will be the process for selection of the DB Entity?
- ❑ Will the process be transparent?
- ❑ How will the qualifications of the proposer be scored?
- ❑ What criteria and what bar are the proposers scored against?
- ❑ How is contract structured (single or 3-phase)?

PDB currently falls under 23CFR636: Design-Build Contracting

- 636.103-Definitions, *Design-build contract* means an agreement that provides for design and construction of improvements by a contractor...
- 636.110-What procedures may be used for solicitations and receipt of proposals? **You may use your own procedures....**
- However, PDB has significant elements that are not part of traditional DB which may not be covered under existing DB procedures.
 - S&O Agreement
 - Manuals and Operating Agreements
 - What needs to be created, updated or changed to accommodate the use of PDB?

Q#4: Massachusetts specifics, \$\$\$\$\$\$\$

Overhead Rate in MA

What is the fee structure for Construction Manager/Designer to get paid for each phase of delivery (Lump Sum, loaded rates, multiplier, percentage, etc)?

How will the PDB Team be compensated during the Pre-Bid Design Phase? Do some states have negotiated lump sum fee with a defined scope?

➤ 23CFR636.110- **You may use your own procedures**

➤ National Trends:

- RFP declares a preset OH rate for Phase 1 and Phase 2 or biddable acceptable range
- Phase 1 payment structure varies greatly
 - Lump sum
 - Time and materials
 - “Brooks Act” type schedule (23CFR172)

➤ Historically no payments for Pre-bid work because PDB uses Qualifications based selection

➤ Owner may provide a stipend for unsuccessful bidders

Q/A#5: the Off-Ramp, aka the Owner ends the contract for Convenience (Division 1.8.13), or Cause, or Default

A. How will the PDB Team be compensated if the Owner exercises its right to “Off Ramp” and discontinue the procurement?

B. How to contractually address “off-ramp” at the end of Phase 1, if the Owner and Design-Builder are unable to reach agreement on GMP or other final contract terms?

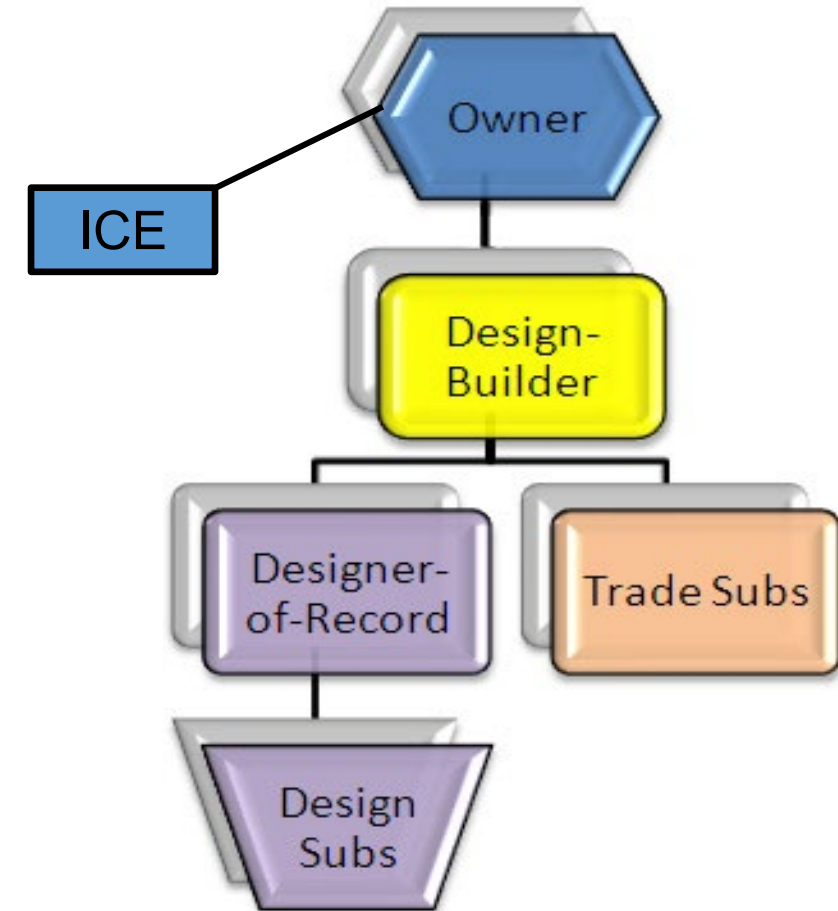
- 1) Off-Ramp and the contractor not being allowed to bid again
- 2) Continue with PDB with different DB Team members
- 3) Change delivery method
- 4) Any prohibited parties in the re-procurement process?

C. Right of the Owner or Successive project participants to use design or other work product of the initial Design-Build Team.

D. Are there specific conditions that need to be identified for the PDB contractor to bid a DBB project should the Owner decide to take the off-ramp?

Q#6: the contract between PDB Team members

- ❑ How does exercise of an off-ramp impact the obligations, risk, and insurance for the withdrawing design-builder and **its consulting engineer subconsultant**?
- ❑ As designers on Design-Build projects, some design firms have had payments withheld by both owner **and contractors** out of dissatisfaction with the process



Q#7: do we have to use the Open Book nature of pricing?

Answer: **YES**

But why:

- 1) Project is using public [federal] funds so we are **all** accountable to the Americans who are providing those funds via their tax dollars
- 2) Federal regulation requires an Owner Agency **Price Reasonableness** finding per 23CFR636.302(a)(1)(iv) to ensure a fair price for the work
 - ✓ Comparison of 3 estimates: the Owner, the ICE, and the PDB Team

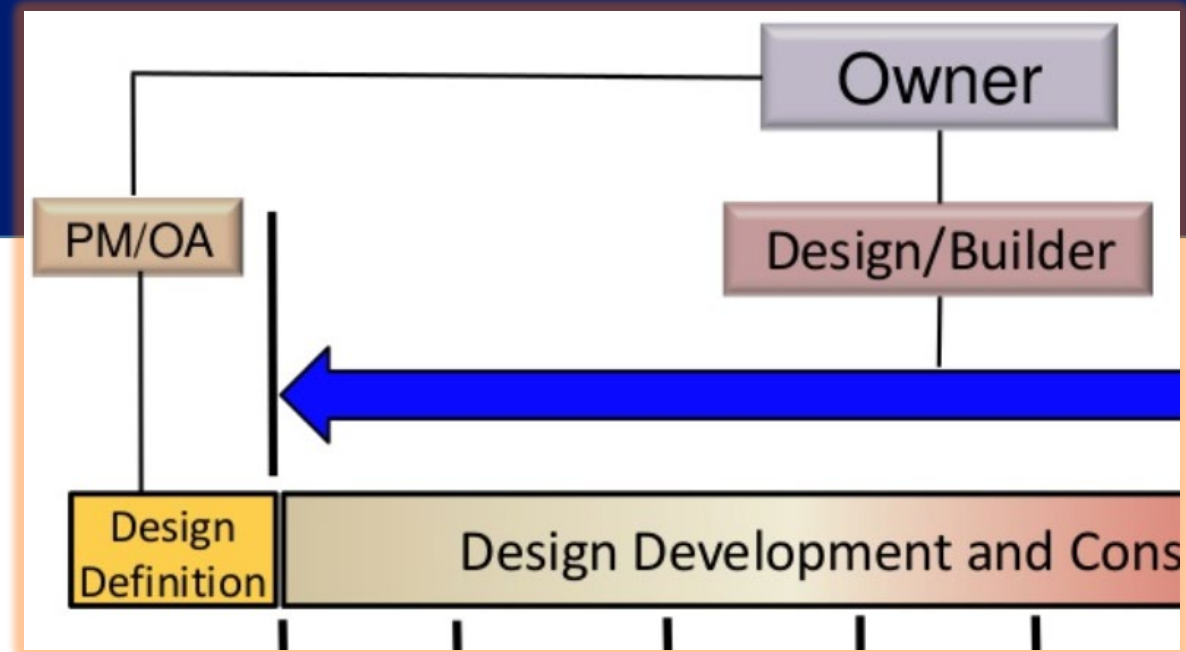


Q#8: Conflicts of Interest

The current Design-Build law in Massachusetts expressly prohibits a design professional from participating on a Design-Build team if they are retained by the state to develop the preliminary design, budget, schedule and other fundamental project requirements (MGL Chapter 149A, Section 18). This premise is an industry standard, as it is understood that such involvement by an engineering firm during the preliminary design phase of a project can give them an unfair competitive advantage during the final design/construction phase. It is also understood that such involvement during preliminary design can create a conflict of interest for the engineering firm during final design/construction, because the firm is representing both the owner (as the project developer) and the design-builder (as the project designer).

However, using the Progressive Design-Build model, this design professional is no longer prohibited from participating in both primary phases of the project. Further, they are automatically awarded the final contract (if the owner doesn't decide to use their off-ramp option) without any additional competition. This relationship also leaves the owner without an independent owner's engineer during the final phase of the project because the design professional obviously can't review and approve their own work on behalf of the owner.

How can we justify allowing a design professional that helps to develop the Base Technical Concept on behalf of the owner, to also prepare the final design as part of a Design-Build team? Essentially, the design professional would be developing their own scope of work and budget. Why is this acceptable under the PDB model yet legally prohibited under the DB model?



Answer: It is **not** acceptable.

Recall: 23 CFR 636.116 requires conflict of interest in the RFQ, RFP, and contract.





Maryland Transportation Authority

Francis Scott Key (FSK) Bridge Replacement
I-695/MD 695 over the Patapsco River/Baltimore Harbor

FAP No.: AC-ER-115-1(26)N

Contract No. KB-4903-0000

the types of subcontracting work (with projected dollar amounts) that DBEs will be solicited to perform and a projected timeframe in which subcontracts will be executed.

GI-1.36 Disadvantaged Business Enterprise Forms

Refer to Attachment D for DBE forms.

GI-1.37 Living Wage Requirements

There is no Living Wage requirement for this procurement.

GI-1.38 Federal Funding Acknowledgement

This Contract does contain Federal-aid funds.

GI-1.39 Restrictions on Participation in the Contract

An individual or entity that has received monetary compensation as the lead or prime design consultant under a contract with the MDTA to assist in the development of the National Environmental Policy Act document, as 23 CFR 636.109 requires these consultants to be under the exclusive direction and control of the contracting agency, or has been retained to perform design review and construction phase services on behalf of the MDTA for this Project, or a person or entity that employs such an individual or entity, or a person or an entity who has received in excess of \$500,000 for services performed for this Project, may not submit a Proposal for this procurement and is not a responsible Offeror under COMAR 21.06.01.01. The Proposal from such an individual or entity will be rejected pursuant to COMAR 21.06.01.01 and COMAR 21.06.02.03.

An individual or an entity may not submit more than one Proposal as a Principal Participant or as a joint venture. Also, an entity that responds to this RFP as a Principal Participant, by itself or in a joint venture, may not be included as a designated subcontractor to another firm that responds as a Principal Participant. Multiple responses under any of the foregoing situations may cause the rejection of all responses of the firms involved. The above does not preclude a firm that has not submitted as a Principal Participant from being designated as a subcontractor to more than one (1) Principal Participants responding to this RFP.

The following is a list of consultants, subconsultants, and/or entities that the MDTA has determined to be conflicted and ineligible to participate in any manner whatsoever in connection with this procurement prior to Award, including any involvement in connection with the development, preparation, or submission of a Proposal.

- Johnson, Mirmiran & Thompson or JMT, Inc.,
- WSP USA Inc.,
- Blackwater Environmental Group,
- Prime AE,
- Gannett Fleming,
- Reynolds, Smith and Hills or RS&H,
- Magnitude LLC,
- Rummel, Klepper and Kahl or RK&K, and
- Whitman, Requardt & Associates or WRA.

Example: FSK Bridge Collapse, RFP page 28

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LUNCH Break



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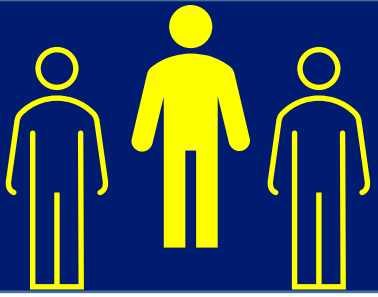
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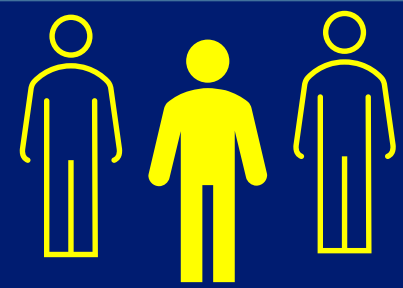
Breakout Time!!!

- the Good**
- the Bad and Ugly**
- Next Steps and Expectations**

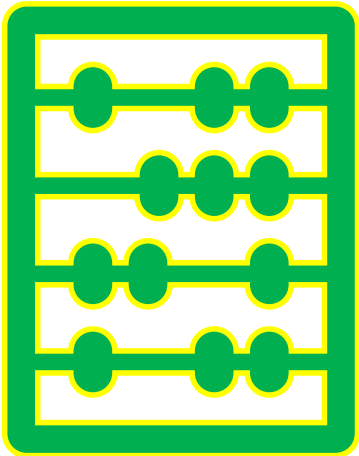
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Let's Mix it up a bit!



1) Count off by X



2) Move to the Designated Table



3) Introduce Self to new Group



POST - IT

4) Brainstorm with your group. Place your answers on the post-it notes.

5) Designate a *Spokesperson* to present your team's answers.



The Good

- What are the benefits of Massachusetts DOT using PDB?
- Why do you want to use PDB?
- What are THE POSITIVES?



The Bad & Ugly

- What are the negatives of Massachusetts DOT using PDB?
- What are your burning issues, fears and concerns?



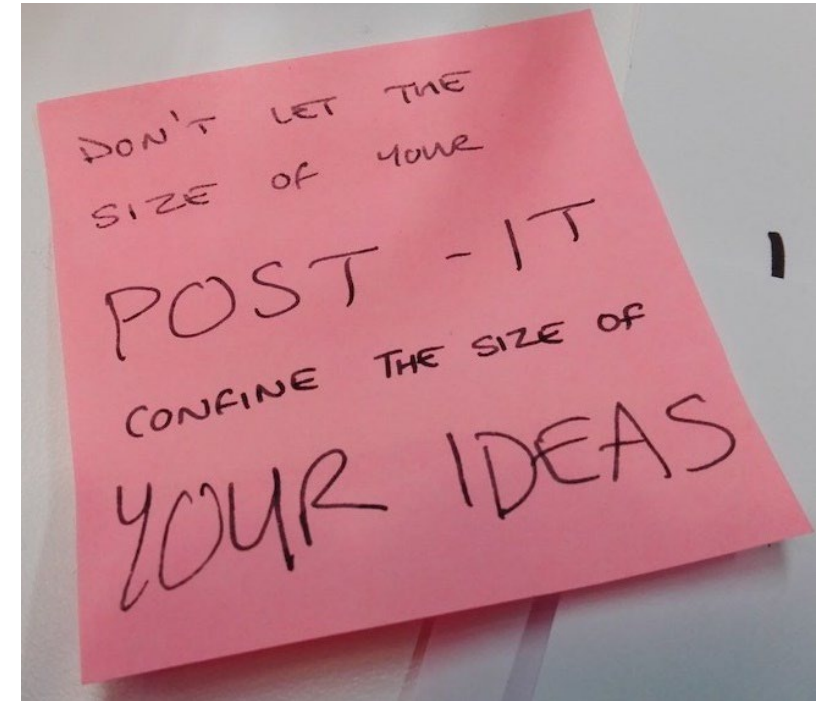
Where do we go from here?

Q#9: Where is Mass DOT today?

A: we still need Legal Authority

So...

- What should be the next steps for MassDOT?
- What should be the next steps for Industry (ACEC, CIM, etc) ?



FHWA Part 4: Final thoughts

- ACM Team's observations, what makes a successful PDB project**



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FHWA observations of successful PDB projects ...

- #1 rule of PDB: OWNER Agencies must be **End Results** driven and stop giving step-by-step instructions



- PDB mirrors the CM/GC process except for who the contract is with
 - Single vs dual entities
 - Spearin Doctrine



...ACM Semantics

- Misuse of term ***Performance Specification***
 - Specification indicates that a design decision has been made
- RFP should contain ***Performance Criteria***
 - End results, not means & methods
 - The design is a deliverable of the contract
- The Designer-of-Record prepares “specifications”
- Agency → ***Let It GO!!***
- Contractor → ***Empowered!!***

**Wants
vs
Needs**



...Critical Elements of successful PDB projects

Source: DBIA, 2018

- Select the most qualified PDB Team
- Let the PDB Team use their ingenuity and experience to develop the design
- Price is significantly less important than non-price factors
- Opportunity for the Owner to seek Best-Value solutions (durability, sustainability, ease of maintenance)
- Trust, Flexibility, Integrity and Honesty in communications with mutual respect for and appreciation of perspectives and ideas

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... ACM Project Suitability

- NEPA, Permits, and ROW/RR/Utility requirements must be clearly defined
- Must have a **SIGNIFICANT** design component
- Specialty skills needed for design and/or construction
 - Design tailored to contractor capabilities
 - WZTC and staging
- Schedule
 - Significant time savings realized through concurrent activities
 - State DOT staff resource constraints under contract-imposed deadlines
 - Predefined start or end dates for items of work
- Reasons for selection should not be:
 - Obligation of funds
 - Compensate for inadequate agency resources

... Not an ACM Candidate project *IF* ...



- Final design must be completed before:
 - **An accurate estimate of costs can be developed**
 - **Agency can obtain NEPA Clearance & permits**
 - **Approval to proceed with construction issued**
- Owner wants “Heavy” input to design
- Project too small to attract competent competitors



Source: Adobe stock


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... Issues Resolution & Partnering

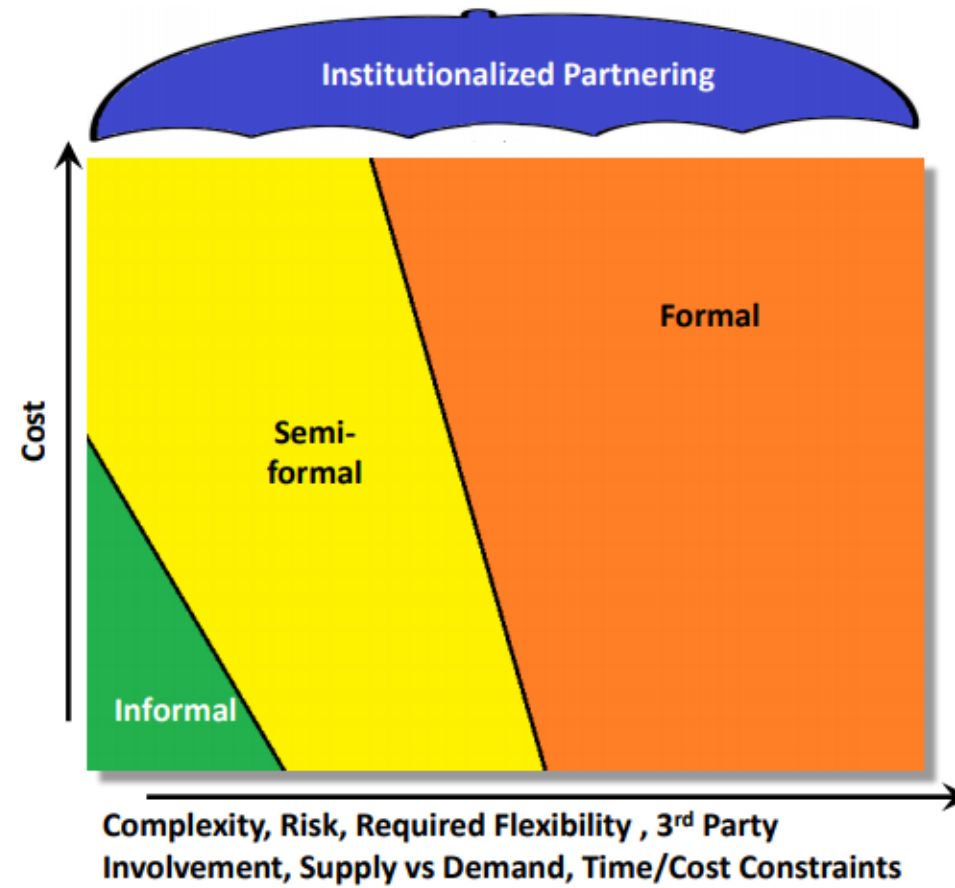


WSDOT – *“Making a bad decision fast is frequently better than making no decision.”*

- Have a **process**
- ... or have the contractor propose a process
- ... with specific timeframes!
- ... and then you **both** have to live with it!!!
- Claims avoidance
- On-Time & On-Budget



... Issue Resolution & Partnering



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Quiz the Kat...

... Last chance!



a final thought...

- Progressive Design-build use in highway construction is in its infancy



- We must crawl before we walk ...

Walk before we run ...

and run before we soar!



CLOSING

- **ACEC/MA, Abbie Goodman**
- **CIM, Jeff Mahoney**
- **MassDOT, Carrie Lavallee**



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The End.

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